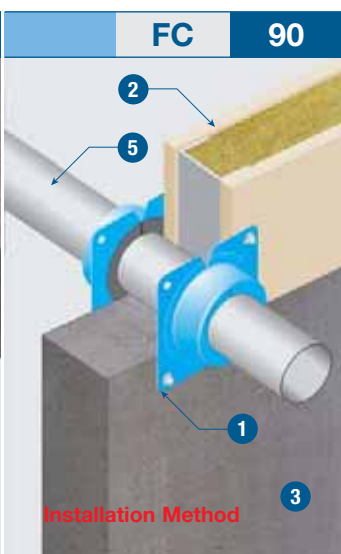
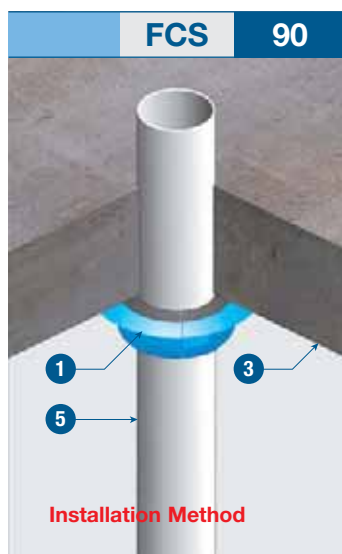


**Promat**



## **Fire Collars For Plastic Pipe Penetration**





PROMASEAL® fire collars are purpose made painted steel shells with integral mounting points, containing a specially formulated intumescent material. A fastening clip is fixed to the shell at the closed position. They prevent the passage of fire through gaps in compartment walls and floors caused by the collapse and/or melting of combustible services in the event of fire. The collars are used to maintain the fire resistance of walls and floors when they are penetrated by combustible pipework made from plastic e.g. Polyethylene PE, Polyvinylchloride PVC, Polypropylene PP and can also be used around groups of cables. They have been successfully tested and assessed to provide up to 4 hours fire resistance by independent laboratories to meet the requirements of BS 476: Part 20: 1987, AS 1530: Part 4, AS 4072: Part 1 and prEN 1366: Part 3: 1993. Insulation criteria will vary depending up on the pipe size and type and the building element. Check with Promat or your local supplier for approvals before installing collars.

### TECHNICAL DATA

**Up to 4 hours fire rating, integrity and insulation in accordance with the criteria of BS 476: Part 20, AS 1530: Part 4, AS 4072: Part 1 and prEN 1366: Part 3: 1993.**

- 1 PROMASEAL® Fire Collar
- 2 Concrete, masonry or other fire rated wall elements
- 3 Concrete floor or wall
- 4 Attachment with suitable anchor i.e. Steel expanding fasteners or laminating screws
- 5 Plastic piping e.g. Polyethylene PE, Polyvinylchloride PVC, Polypropylene PP

### Dimensions Guide of FCS PROMASEAL® Retrofit Collar

| Code No. | uPVC pipe nom. (mm) | HDPE pipe nom. (mm) | ABS pipe nom. (mm) | Body (mm) |     |     | Flange (mm) |
|----------|---------------------|---------------------|--------------------|-----------|-----|-----|-------------|
|          |                     |                     |                    | H         | D 1 | D 2 | D 3         |
| FCS 40   | 40                  | 50                  | 40                 | 43        | 84  | 56  | 131         |
| FCS 50   | 50                  | 56                  | 50                 | 43        | 98  | 70  | 145         |
| FCS 65   | 65                  | 75                  | —                  | 43        | 113 | 84  | 161         |
| FCS 80   | 80                  | 90                  | 80                 | 43        | 138 | 98  | 186         |
| FCS 100  | 100                 | 100                 | 100                | 53        | 167 | 127 | 214         |
| FCS 150  | 150                 | 150                 | —                  | 70        | 212 | 172 | 259         |

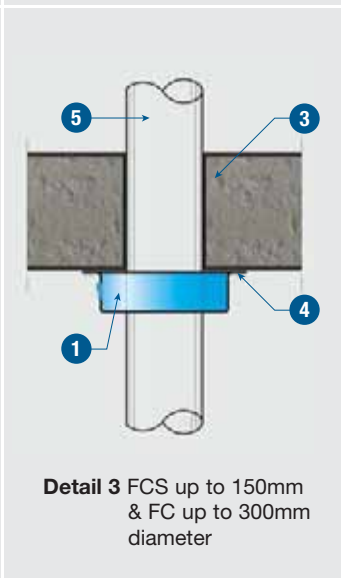
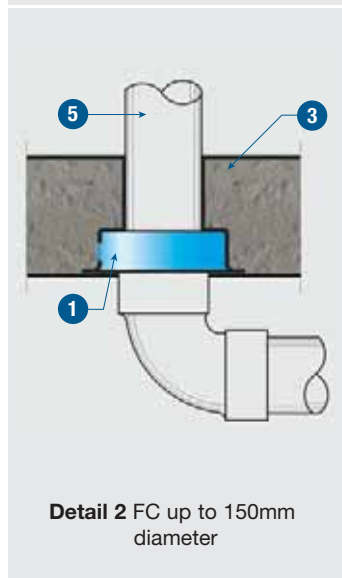
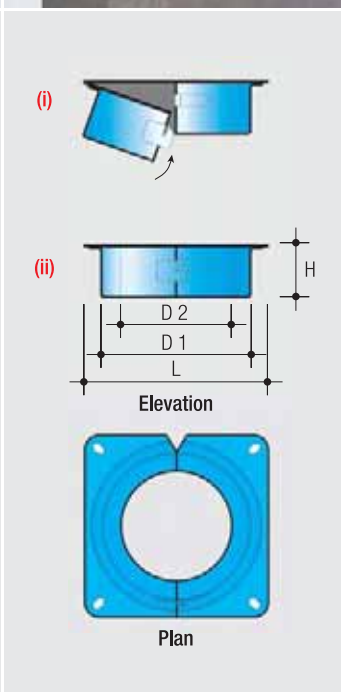
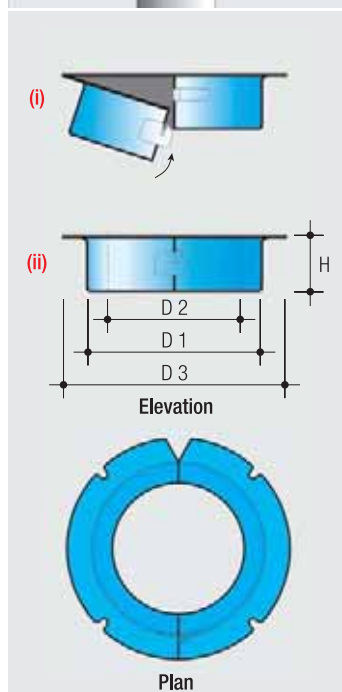
NOTE: The above table measurements apply to floors only.

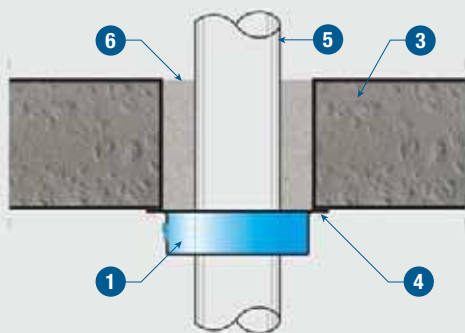
### Dimensions Guide of FC PROMASEAL® Retrofit Collar

| Code No. | Pipe size nom. (mm) | Body (mm) |     |     | Flange (mm) |
|----------|---------------------|-----------|-----|-----|-------------|
|          |                     | H         | D 1 | D 2 | L           |
| FC 40    | 40                  | 43        | 77  | 45  | 112         |
| FC 50    | 50                  | 43        | 90  | 58  | 125         |
| FC 65    | 65                  | 43        | 103 | 71  | 138         |
| FC 80    | 80                  | 43        | 123 | 85  | 158         |
| FC 100   | 100                 | 53        | 150 | 112 | 185         |
| FC 125   | 125                 | 63        | 165 | 127 | 197         |
| FC 150   | 150                 | 73        | 200 | 162 | 235         |
| FC 200   | 200                 | 100       | 264 | 204 | 330 Ø       |
| FC 225   | 225                 | 100       | 290 | 228 | 364 Ø       |
| FC 250   | 250                 | 120       | 316 | 254 | 380 Ø       |
| FC 300   | 300                 | 160       | 402 | 318 | 466 Ø       |

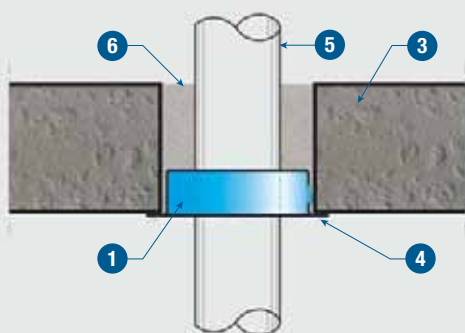
NOTE: FC 200 to FC 300 have circular bases.

IMPORTANT: Always check with Promat to ensure the type of plastic being protected is tested with the collars under consideration for use.

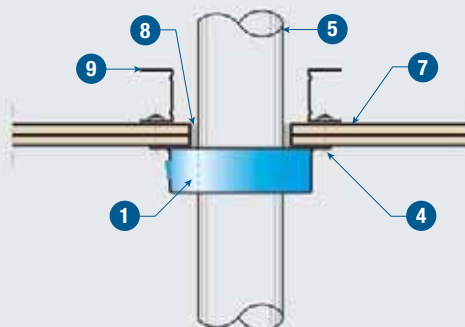




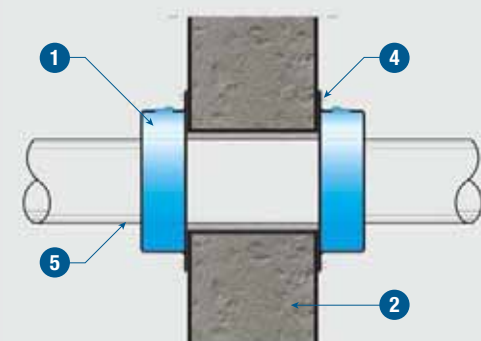
Detail 4 FCS up to 150mm & FC up to 300mm diameter



Detail 5 FC up to 150mm diameter



Detail 6 FC to 150mm diameter for ceilings up to 2 hours



Detail 7 FC up to 300mm diameter

### TECHNICAL DATA

Up to 4 hours fire rating, integrity and insulation in accordance with the criteria of BS 476: Part 20, AS 1530: Part 4, AS 4072: Part 1 and prEN 1366: Part 3: 1993.

- 1 PROMASEAL® Fire Collar
- 2 Concrete, masonry or other fire rated wall elements
- 3 Concrete floor
- 4 Attachment with suitable anchor  
i.e. Steel expanding fasteners or laminating screws
- 5 Plastic piping e.g. Polyethylene PE, Polyvinylchloride PVC, Polypropylene PP
- 6 PROMASEAL® Mortar
- 7 Fire Rated board ceilings
- 8 PROMASEAL® Acrylic Sealant
- 9 Stud at screw position

NOTE: Insulation criteria will vary depending up on the pipe size and type and the building element.

#### Detail 2

FC PROMASEAL® Retrofit Collars can be cast in to floor slabs for pipes up to 150mm. The collar should be installed to the soffit side of the floor. See FCC, Green and Hi-Blu collars for general cast in applications.

#### Detail 3

FC and FCS PROMASEAL® Retrofit Collars for floor slabs. The collars are to be fixed to the under side of the floor slabs. Ensure all fixing points are used. FC for up to 315mm and FCS for up to 150mm diameter.

#### Detail 4

If there is a gap greater than 12mm between the pipe and cored hole, backfill with PROMASEAL® Mortar. For gaps less than 12mm, seal with PROMASEAL® Acrylic Sealant. Use FC PROMASEAL® Retrofit Collar for pipes up to 315mm, or FCS PROMASEAL® Retrofit Collar for pipes up to 150mm.

#### Detail 5

FC PROMASEAL® Retrofit Collar can also be installed in to a core hole with PROMASEAL® Mortar backfilled for a flush fit. For pipes up to 150mm.

#### Detail 6

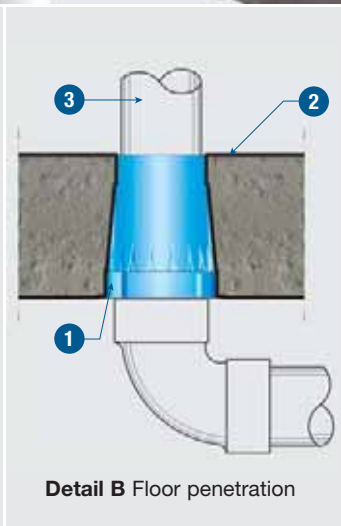
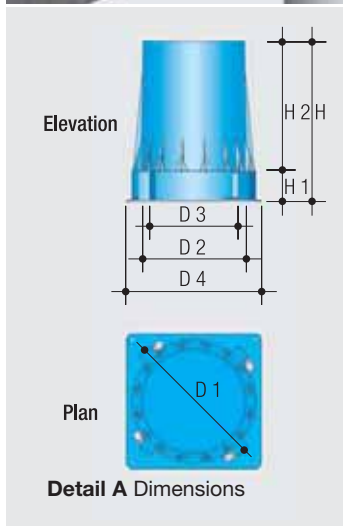
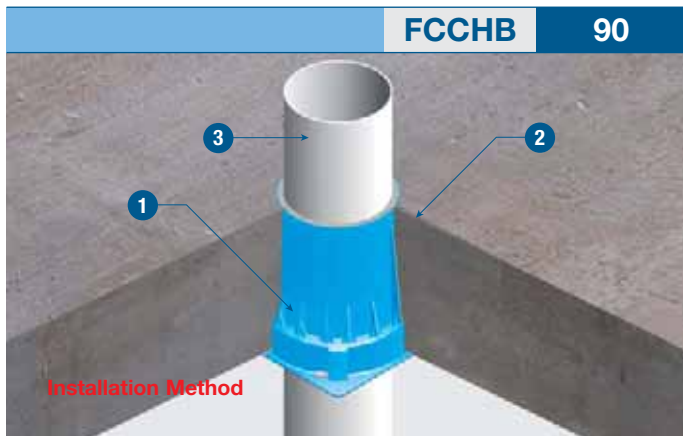
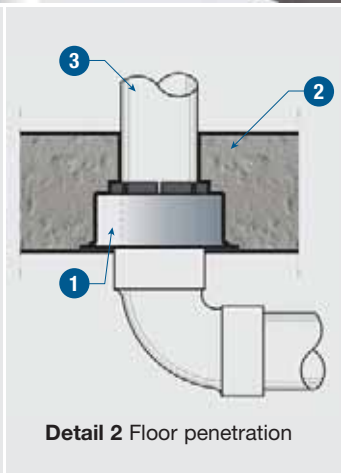
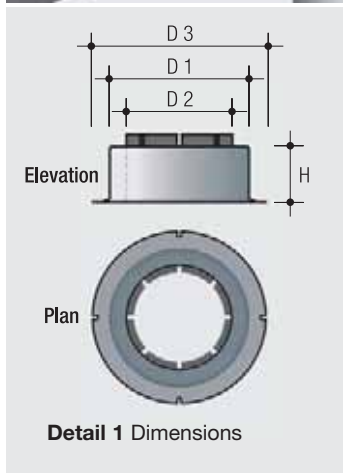
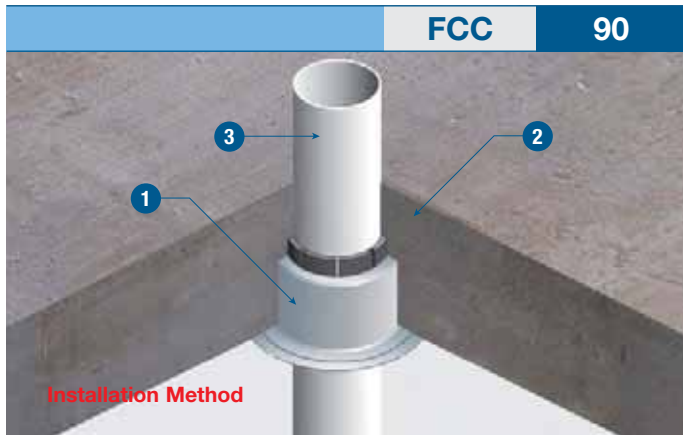
FC PROMASEAL® Retrofit Collars can be installed to pipes in 1 or 2-hours fire rated ceilings. Used PROMASEAL® Acrylic Sealant to seal edges and additional framing to support. For pipes up to 150mm.

#### Detail 7

FC PROMASEAL® Retrofit Collar can be fixed to both sides of wall for pipes up to 315mm. For pipes greater than 110mm, please contact Promat.

NOTE: FCS PROMASEAL® Retrofit Collars can be used on walls and floor slabs around combustible drink supply lines. Pipes with outside diameters greater than 250mm can achieve an 2-hour fire rating (FRL -/120/120) for floors and 3-hour (FRL -/180/180) for walls, and are for use on unvented parts.

IMPORTANT: Always check with Promat to ensure the type of plastic being protected is tested with the collars under consideration for use.



### TECHNICAL DATA

Up to 4 hours fire rating for FCC and up to 3 hours fire rating for FCCHB, integrity and insulation in accordance with the criteria of BS 476: Part 20, AS 1530: Part 4, AS 4070: Part 1 and prEN 1366: Part 3: 1993 respectively.

- 1 PROMASEAL® Fire Collar
- 2 Concrete floor
- 3 Plastic piping e.g. Polyethylene PE, Polyvinylchloride PVC, Polypropylene PP

#### Detail 2 Floor penetration

Cast in as part of slab.

#### Dimensions Guide of FCC PROMASEAL® Cast-In Collar

| Code No. | Pipe size nom. (mm) | Body (mm) |     |     | Flange (mm) |
|----------|---------------------|-----------|-----|-----|-------------|
|          |                     | H         | D 1 | D 2 | D 3         |
| FCC 40   | 40                  | 60 + 15*  | 84  | 43  | 129         |
| FCC 50   | 50                  | 60 + 15*  | 98  | 56  | 143         |
| FCC 65   | 65                  | 60 + 15*  | 111 | 69  | 161         |
| FCC 80   | 80                  | 70 + 15*  | 138 | 82  | 186         |
| FCC 100  | 100                 | 70 + 15*  | 167 | 110 | 209         |

\*Additional height of upright pipe grip

#### Dimensions Guide of FCCHB PROMASEAL® Hi-Blu Collar

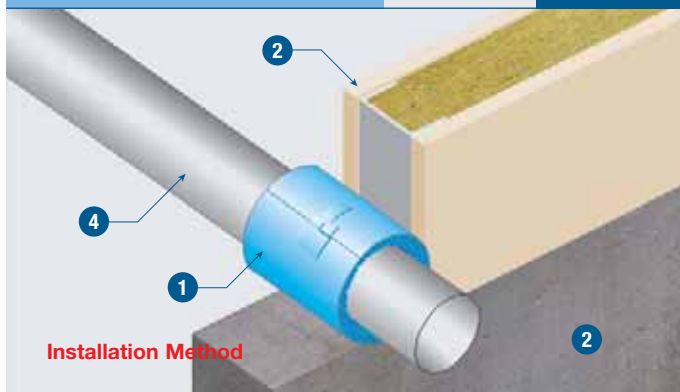
| Code No.  | Body (mm) |     |     |     |     |     | Flange plate (mm) | Steel plate (mm) |     | Graf-tex (mm) |
|-----------|-----------|-----|-----|-----|-----|-----|-------------------|------------------|-----|---------------|
|           | H         | H 1 | H 2 | D 1 | D 2 | D 3 | D 4               | S1               | S2  |               |
| FCCHB 65  | 250       | 45  | 205 | 132 | 97  | 95  | 154               | 95               | 130 | 18            |
| FCCHB 100 | 250       | 57  | 193 | 178 | 142 | 140 | 198               | 140              | 175 | 15*           |
| FCCHB 150 | 250       | 57  | 193 | 232 | 197 | 190 | 253               | 179              | 229 | 10            |

\*Recycled

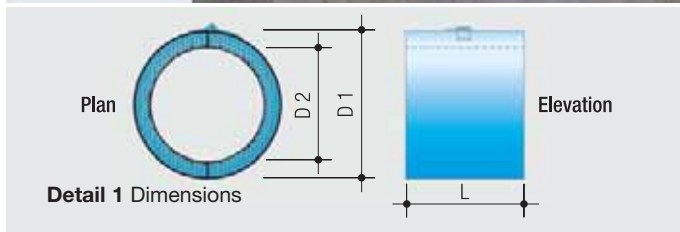
FCCHB PROMASEAL® Hi-Blu Collars are fitted with smoke and water seals.

**IMPORTANT:** Always check with Promat to ensure the type of plastic being protected is tested with the collars under consideration for use.

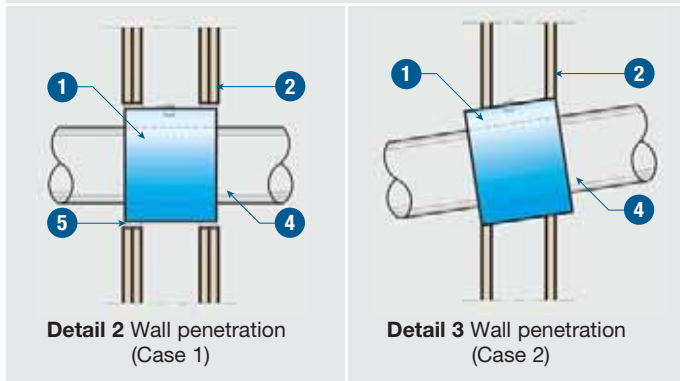
**FCW 90**



Installation Method



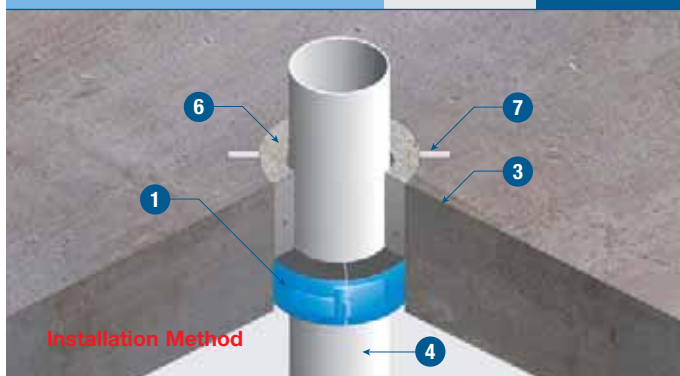
Detail 1 Dimensions



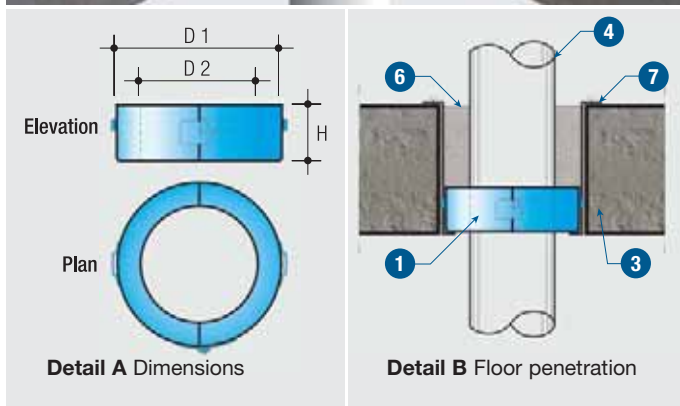
Detail 2 Wall penetration (Case 1)

Detail 3 Wall penetration (Case 2)

**FCD 90**



Installation Method



Detail A Dimensions

Detail B Floor penetration

**TECHNICAL DATA**

Up to 2 hours fire rating for FCW and up to 4 hours fire rating for FCD, integrity and insulation in accordance with the criteria of BS 476: Part 20, AS 1530: Part 4, AS 4072: Part 1 and prEN 1366: Part 3: 1993 respectively.

- 1 PROMASEAL® Fire Collar
- 2 Concrete, masonry or other fire rated wall elements
- 3 Concrete floor
- 4 Plastic piping e.g. Polyethylene PE, Polyvinylchloride PVC, Polypropylene PP
- 5 PROMASEAL® Acrylic Sealant
- 6 PROMASEAL® Mortar
- 7 Steel straps

**Detail 2** Wall penetration (Case 1)

Fill any gaps between the collar and the wall with PROMASEAL® Acrylic Sealant to a depth of 32mm. This gap should not be more than 15mm wide.

**Detail 3** Wall penetration (Case 2)

Collar can be positioned slanting at an angle in dry wall partition. For wider walls, 2 collars may be used.

**Dimensions Guide of FCW PROMASEAL® Wall Collar**

| Code No. | Pipe size nom. (mm) | Body (mm) |      |     |
|----------|---------------------|-----------|------|-----|
|          |                     | L         | D 1  | D 2 |
| FCW 40   | 40                  | 120       | 80*  | 47  |
| FCW 50   | 50                  | 120       | 93*  | 60  |
| FCW 65   | 65                  | 120       | 107* | 75  |
| FCW 80   | 80                  | 120       | 126* | 89  |
| FCW 100  | 100                 | 120       | 153* | 116 |
| FCW 150  | 150                 | 120       | 203* | 164 |

\*Add 3mm to allow for clip

**Detail B** Floor penetration

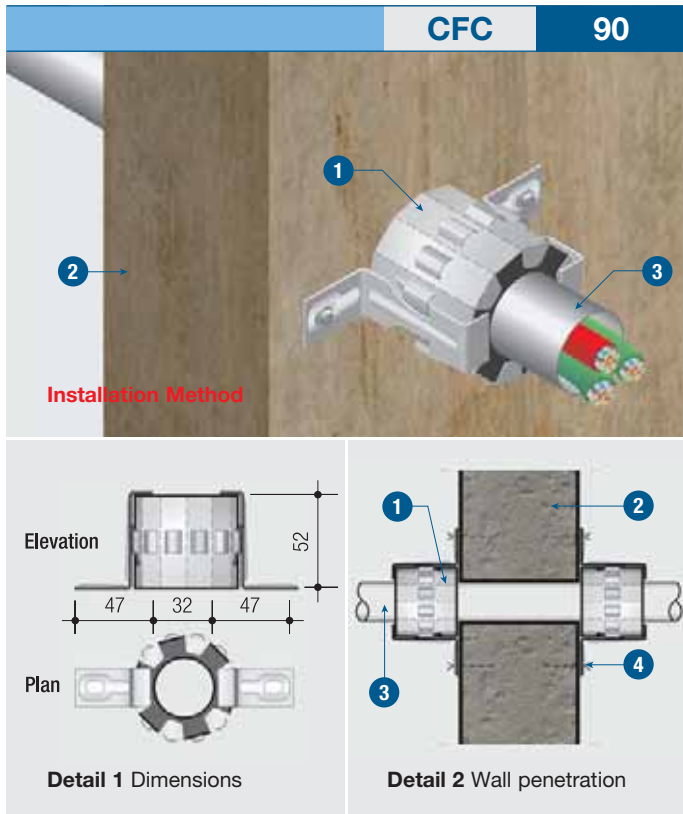
Insertion into cored hole backfilled with PROMASEAL® Mortar.

**Dimensions Guide of FCD PROMASEAL® Drop-In Collar**

| Code No. | Pipe size nom. (mm) | Body (mm) |      |     |
|----------|---------------------|-----------|------|-----|
|          |                     | H         | D 1  | D 2 |
| FCD 40   | 40                  | 43        | 80*  | 45  |
| FCD 50   | 50                  | 43        | 93*  | 58  |
| FCD 65   | 65                  | 43        | 106* | 71  |
| FCD 80   | 80                  | 43        | 126* | 85  |
| FCD 100  | 100                 | 53        | 153* | 112 |
| FCD 150  | 150                 | 73        | 203* | 162 |

\*Add 7mm to allow for clip

**IMPORTANT:** Always check with Promat to ensure the type of plastic being protected is tested with the collars under consideration for use.



### TECHNICAL DATA

Up to 4 hours fire rating, integrity and insulation in accordance with the criteria of BS 476: Part 20, AS 1530: Part 4, AS 4072: Part 1 and prEN 1366: Part 3: 1993.

- 1 PROMASEAL® Conduit Collar
- 2 Concrete, masonry or other fire rated wall elements
- 3 Conduit pipe with or without cables
- 4 Attachment with suitable anchor  
i.e. Steel expanding fasteners or laminating screws

NOTE: Insulation criteria will vary depending up on the pipe size and type and the building element.

#### PROMASEAL® Conduit Collar

- a) The collars are attached to both sides of the wall.
- b) Used for conduits up to 32mm. One size collar does smaller pipes.
- c) Gap between pipe and wall no more than 2mm, sealed with a bead of PROMASEAL® Acrylic Sealant.

#### PROMASTOP® UniCollar®

PROMASTOP® UniCollar® is a unique, patented method of protecting plastic pipes which pass through fire rated walls and slab floors. The system is supplied in a boxed continuous strip, 2250mm long, which is simply cut to length on site, and attached to the wall or floor using supplied clips, and suitable screws, bolts and anchors. The collar has been tested to many international standards (including BS 476: Part 20: 1987 and AS 1530: Part 4: 1997 and UL Certification) and has achieved FRL's up to 4 hours. The collar is used to maintain the fire resistance of walls or slab floors when they are penetrated by combustible pipework made from uPVC, HDPE, P/P and many other materials.

IMPORTANT: Always check with Promat to ensure the type of plastic being protected is tested with the collars under consideration for use.

#### Detail A

Open box at contents lid. Pull out accessories. Pull out only enough UniCollar® strip to do pipe in question.

#### Detail B

Lay the supplied measured tape on the Graftex side of the collar and cut it at marked measurement of the tape according to the pipe size. The length required can also be determined using the chart provided and counting the segments or holding the strip around the pipe.

#### Detail C

Bend the Graftex side of the collar by 180° 2 or 3 time until it snaps.

#### Detail D

Shape the collar to fit the pipe and bevel the Graftex edge for close fit.

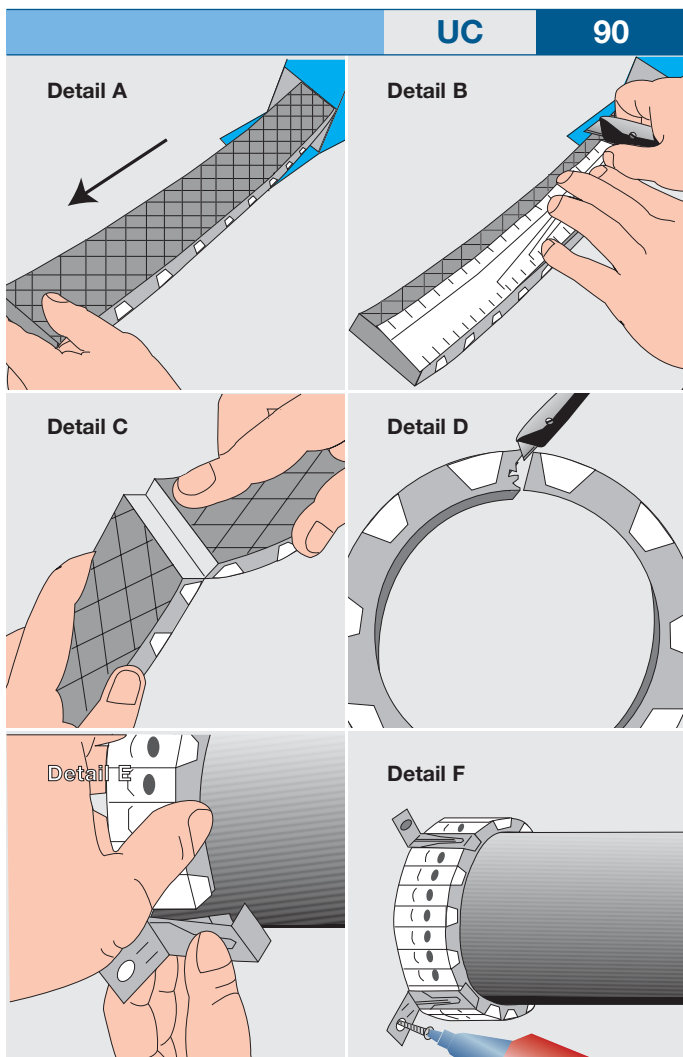
#### Detail E

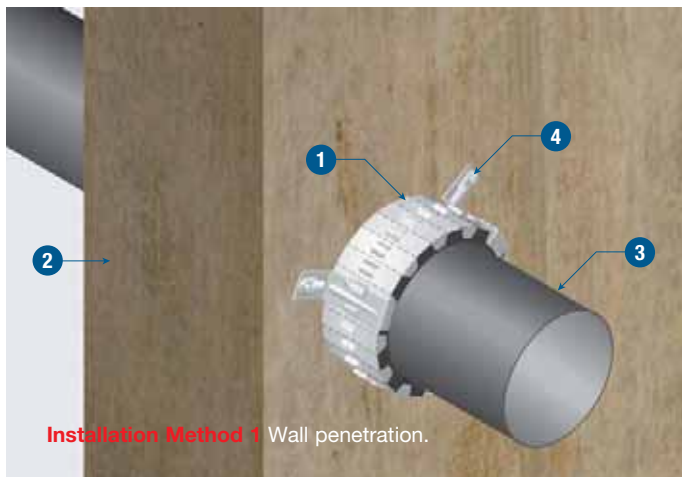
Wrap the collar around the pipe and clip the first bracket into slots on both ends.

#### Detail F

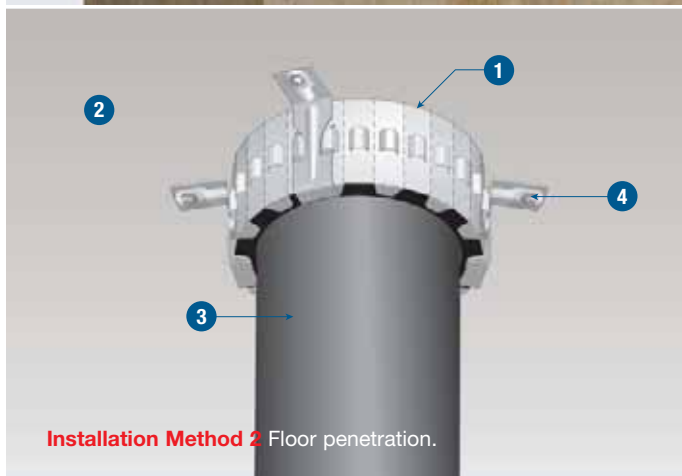
Complete other brackets and fix the collar onto floor/wall.

See next opposite for installation method details.

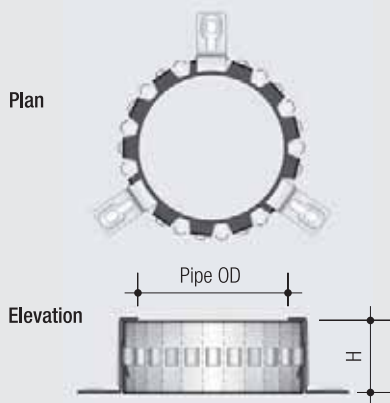




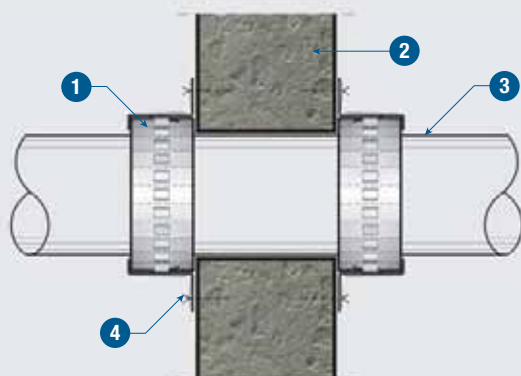
**Installation Method 1** Wall penetration.



**Installation Method 2** Floor penetration.



**Detail 1** Dimension



**Detail 2** Wall penetration

### TECHNICAL DATA

Up to 4 hours fire rating, integrity and insulation in accordance with the criteria of BS 476: Part 20, AS 1530: Part 4, AS 4072: Part 1 and prEN 1366: Part 3: 1993.

- 1 PROMASTOP® UniCollar®
- 2 Concrete wall or floor
- 3 Plastic piping e.g. Polyethylene PE, Polyvinylchloride PVC, Polypropylene PP
- 4 Attachment with suitable anchor i.e. Steel expanding fasteners or laminating screws

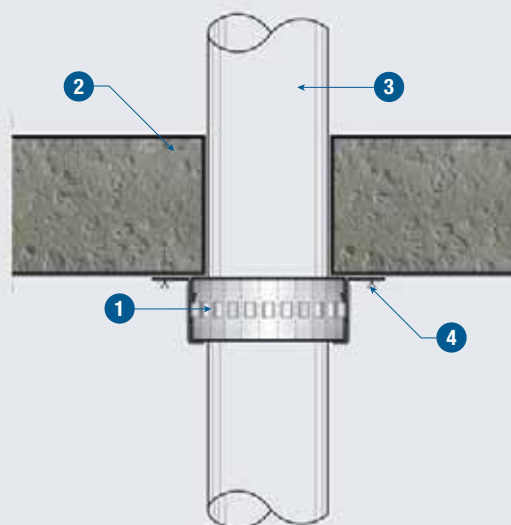
NOTE: Insulation criteria will vary depending up on the pipe size and type and the building element.

The chart below shows the suggested length of strip required for each size pipe and how many brackets to use. At the time of publication test data is available for pipe sizes up to 200mm to some standards. Please contact your local Promat distributor for further details or visit [www.firecollar.com](http://www.firecollar.com).

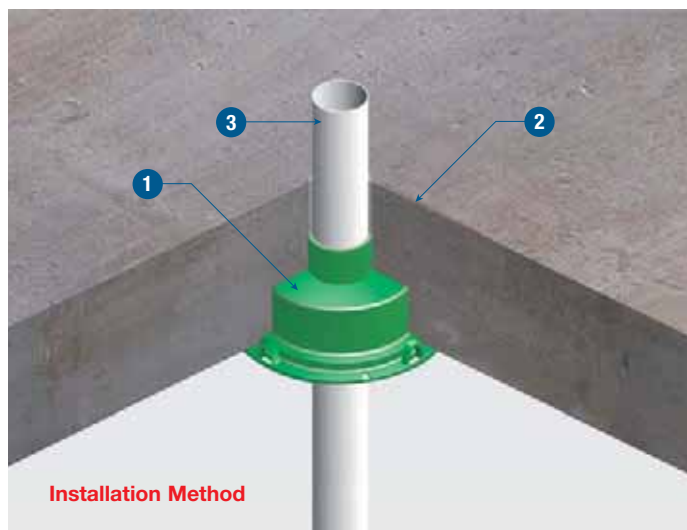
|                         |    |     |    |     |     |    |     |    |
|-------------------------|----|-----|----|-----|-----|----|-----|----|
| Nominal pipe size (mm)  | 43 | 50  | 55 | –   | 63  | 69 | 75  | 83 |
| (inches)                | –  | 1.5 | –  | 2   | –   | –  | 2.5 | –  |
| Casing segments         | 15 | 17  | 18 | 19  | 20  | 21 | 22  | 24 |
| Approx. collars per box | 10 | 8.5 | 8  | 7.5 | 7.5 | 7  | 6.5 | 6  |

|                         |    |     |     |     |     |      |     |     |
|-------------------------|----|-----|-----|-----|-----|------|-----|-----|
| Nominal pipe size (mm)  | 90 | 110 | 114 | 125 | 140 | 160  | –   | 200 |
| (inches)                | 3  | –   | 4   | –   | 5   | –    | 6   | –   |
| Casing segments         | 25 | 29  | 30  | 33  | 36  | 40   | 42  | 49  |
| Approx. collars per box | 6  | 5   | 5   | 4.5 | 4   | 3.75 | 3.5 | 3   |

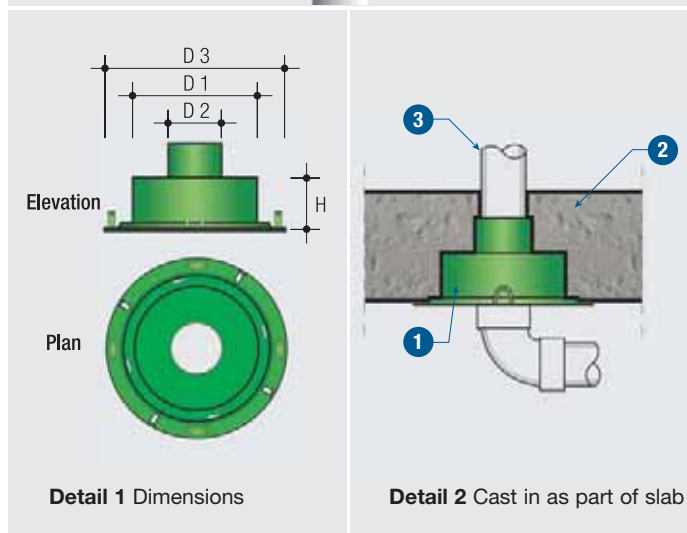
**IMPORTANT:** Always check with Promat to ensure the type of plastic being protected is tested with the collars under consideration for use.



**Detail 3** Wall or floor penetration

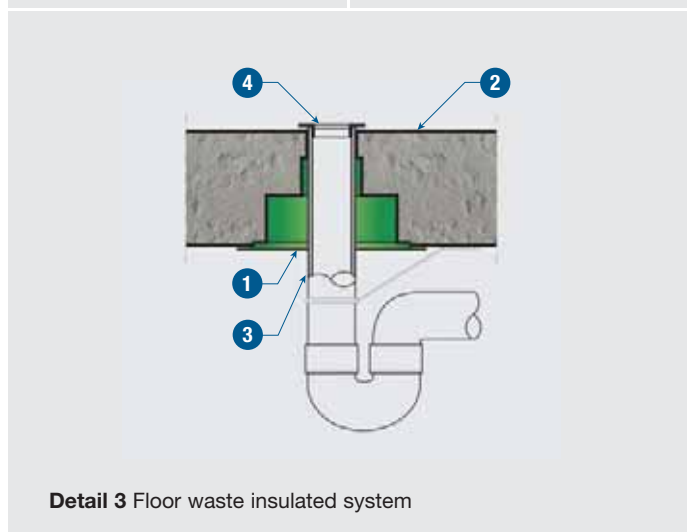


Installation Method



Detail 1 Dimensions

Detail 2 Cast in as part of slab



Detail 3 Floor waste insulated system

PROMASEAL® Green Cast-In Collars have been successfully tested in floor constructions for up to 3 hours. Tests were carried out using the procedures and criteria of AS 1530: Part 4 and AS 4072: Part 1.

The results are reported by various approved testing laboratories including Warrington Fire Research and CSIRO.

PROMASEAL® Green Cast-In Collars help prevent the passage of smoke, water, toxic gases and fire through gaps in compartment floors caused by the collapse and melting of combustible services in the event of a fire. For installation of collars in permanent form work and thin floor slabs (<120mm) applications always contact Promat.

### TECHNICAL DATA

- 1 PROMASEAL® Green Cast-In Collar
- 2 Concrete floor, with fire resistance equal or higher than the collar
- 3 Plastic piping
- 4 Floor waste grille

PROMASEAL® Green Cast-In Collar size ranges from pipe OD 43mm to 110mm for fire ratings up to 3 hours with uPVC HDPE pipe. Different collars designs for various applications have FRL's ranging up to 4 hours.

#### Installation

Place the collar onto the formwork. Secure the collar into position with 20mm x 3mm flat head clouts, nailed through the notches provided. DO NOT SKEW NAIL.

Insert a pipe section through the collar so that the end of the pipe sits flat of the formwork, ensuring the top of the pipe is higher than the finished slab depth.

Ensure the pipe section remains in place and plumb during the concrete pour and immediately afterwards.

After the formwork is stripped, the casting pipe may be knocked out of the collar and replaced with the required pipe section if required to do so.

#### Dimensions Guide

| Code No.  | Pipe nom. size (mm) | Body (mm) |     |     | Flange plate |
|-----------|---------------------|-----------|-----|-----|--------------|
|           |                     | H         | D 1 | D 2 | D 3          |
| Green 40  | 40                  | 49 + 30*  | 115 | 43  | 160          |
| Green 50  | 50                  | 49 + 30*  | 115 | 56  | 160          |
| Green 65  | 65                  | 49 + 20*  | 115 | 69  | 160          |
| Green 80  | 80                  | 60 + 20*  | 163 | 83  | 210          |
| Green 100 | 100                 | 60 + 20*  | 163 | 110 | 210          |

\*Additional height of upright pipe grip

#### Floor Waste Systems

Collars used for floor waste are available in various models and the type used depends on the Certification required for the building.

All floor waste systems have been tested in accordance with AS 1530: Part 4 and the appropriate provisions of AS 4072: Part 1.

FWH and FWL Cast-in collars provide fully insulated systems.

Integrity only systems and Alternate solutions are also available (all in accordance with the provisions of the BCA).

Retrofit systems are available which provide fully insulated, Integrity only and Alternate solutions (all in accordance with the provisions of the BCA).



For latest information of the Promat Asia Pacific organisation contact details, please refer to [www.promat-ap.com](http://www.promat-ap.com)

## ASIA PACIFIC HEADQUARTERS

### Promat International (Asia Pacific) Ltd.

7E Jalan 1/57D, Off Jalan Segambut  
51200 Kuala Lumpur  
MALAYSIA  
Tel: +60 (3) 6250 2880  
Fax: +60 (3) 6250 1159  
Email: [info@promat-ap.com](mailto:info@promat-ap.com)

## HONG KONG

### Promat International (Asia Pacific) Ltd.

Room 1010, C.C. Wu Building  
302-308 Hennessy Road  
Wanchai  
Tel: +852 2836 3692  
Fax: +852 2834 4313  
Email: [apromath@promat.com.hk](mailto:apromath@promat.com.hk)

## AUSTRALIA

### Promat Australia Pty. Ltd.

1 Scotland Road, Mile End South  
Adelaide, SA 5031  
Tel: +1 800 30 20 20  
Fax: +61 (8) 8352 1014  
Email: [mail@promat.com.au](mailto:mail@promat.com.au)

### New South Wales Office

### Promat Australia Pty. Ltd.

Unit 1, 175 Briens Road  
Northmead, NSW 2152  
Tel: +1 800 30 20 20  
Fax: +61 (2) 9630 0258  
Email: [mail@promat.com.au](mailto:mail@promat.com.au)

### Victoria Office

### Promat Australia Pty. Ltd.

3/273 Williamstown Road  
Port Melbourne, VIC 3207  
Tel: +1 800 30 20 20  
Fax: +61 (3) 9645 3844  
Email: [mail@promat.com.au](mailto:mail@promat.com.au)

## CHINA

### Promat China Ltd.

Room 504, Block B, Qi Lin Plaza  
13-35 Pan Fu Road  
510180 Guangzhou  
Tel: +86 (20) 8136 1167  
Fax: +86 (20) 8136 1372  
Email: [info@promat.com.cn](mailto:info@promat.com.cn)

### Beijing Office

### Promat North China

*(Division of Promat China Ltd.)*  
Room 5002, Zhongji New Oriental Tower  
No.42 Dongsanhuan North Road  
100028 Beijing  
Tel: +86 (10) 6583 6102  
Fax: +86 (10) 6583 6173  
Email: [info@promat.com.cn](mailto:info@promat.com.cn)

## INDIA

### Promat International (Asia Pacific) Ltd.

*(India Representative Office)*  
S-4, Second Floor  
B-87 Defence Colony  
110024 New Delhi  
Tel: +91 (11) 2433 1594  
Fax: +91 (11) 2433 1595  
Email: [raman@promat-asia.com](mailto:raman@promat-asia.com)

## MALAYSIA

### Promat (Malaysia) Sdn. Bhd.

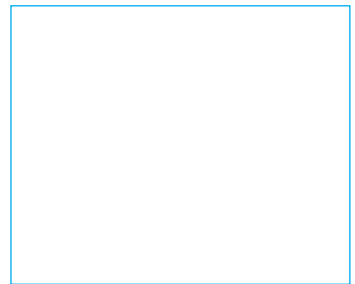
7E Jalan 1/57D, Off Jalan Segambut  
51200 Kuala Lumpur  
Tel: +60 (3) 6250 2880  
Fax: +60 (3) 6250 1158  
Email: [info@promat.com.my](mailto:info@promat.com.my)

## SINGAPORE

### Promat Building System Pte. Ltd.

10 Science Park Road, #03-14 The Alpha,  
Singapore Science Park II  
Singapore 117684  
Tel: +65 6776 7635  
Fax: +65 6776 7624  
Email: [info@promat.com.sg](mailto:info@promat.com.sg)

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