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Harmer Floor Drains



Harmer Floor Drains



Introduction

The new Harmer Floor range of drains from Alumasc sets new standards in quality, versatility and performance.

Newly designed Drain Bodies in polyester-coated aluminium, together with elegant Grates, combine to create a faultless range of floor drains to suit virtually any interior drainage application and all types of flooring.

Harmer Floor Drains show marked advances in design sophistication and performance. With minimum complexity, Harmer Floor Drains are versatile and efficient. With no installation complications, Harmer Floor Drains are synonymous with speed and cost effectiveness on any installation.

Finely engineered manufacture and enhanced features bring many benefits, including corrosion resistance and durability, with smooth and attractive finishes that are tough and hygienic. Harmer Floor Drains are available either trapped or untrapped. The range of Grates now includes stainless steel as well as nickel bronze, available in a choice of attractive finishes.

Assembly, installation and pipe connection is quick and easy, as the Trap is now a simplified integral element.

Benefits

Flexibility of Application

Trapped and untrapped versions for vertical or horizontal application, with optional auxiliary inlets.

Durable and Long-Lasting

Polyester powder coated aluminium Drain Body and Clamp Ring.

Design Options

Grates and Bezels available in stainless steel or nickel bronze to suit all floor finishes (screed, tile, flexible sheet flooring).

Ease of Installation

Grate, Bezel and Throat installed as a single unit into the insitu body.

High Flow Performance

Exceeds current British Standards.

Direct Connection to Drainage System

Via 110mm spigot outlet.

Fully Adjustable

The sliding throat permits vertical (25mm-115mm), horizontal and rotational adjustment to the finest tolerances.

Ease of Maintenance

Top accessible via removal of Trap and Trap Cup in Bezel.

Range Summary

The Harmer Floor Drain offers great flexibility of choice, trapped or untrapped, with a standard range of interchangeable components that are fast and straightforward to assemble and install.

Untrapped Harmer Floor Drain

To use the Harmer Floor Drain untrapped, simply push-fit the Grate, Bezel and Throat assembly into the DPM Clamp Ring. Water drains directly into the body for discharge.

Trapped Harmer Floor Drain

When a trapped drain is required, the Grate and Bezel are supplied inclusive of the Trap. Once the drain is installed, the Trap can be easily accessed by unscrewing the Grate and simply lifting out. A Trap can be easily retrofitted to an untrapped Harmer Floor Drain at a later date if required.



Grates and bezels



Grates and Bezels

A range of Grates and Bezels is available to suit different floor types and aesthetic requirements. Grates and Bezels are available in stainless steel or nickel bronze, and in a variety of finishes.

Trap assembly



Trap Assembly

The Trap consists of a demountable funnel and cap for ease of cleansing. A rubber gasket is factory-fitted to ensure a gastight seal for air testing.

Vertical spigot drain bodies



Horizontal spigot drain bodies



Drain Bodies

The Harmer Floor Drain Body is available with a vertical or horizontal spigot connection. Versions with inlets for connection from sink, bath, shower wastes, etc, are an option. All Harmer Floor Drain Bodies are factory-fitted with a Dirt Cover prior to site fitting of the grate assembly.

Pipe adaptors

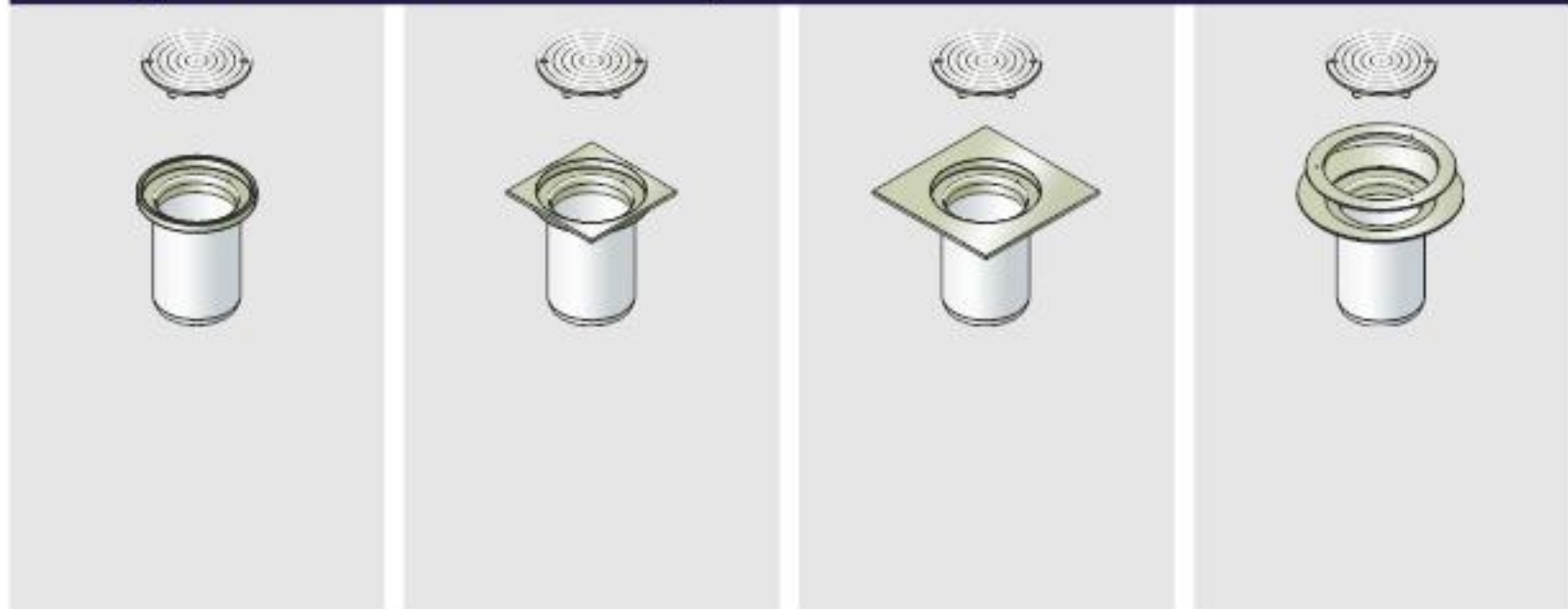


Pipe Adaptors

Harmer Pipe Adaptors are the quick and efficient way to incorporate a grate and trapped pipe connection within a suspended floor. See page 13.

Product Selector

Untrapped drain: Grate and Bezel assembly



Standard Products & Codes

150mm Circular Grate	150mm Square Grate	200mm Square Grate	200mm Vinyl Sheet Grate
Satin Stainless Steel Finish			
BC150SS	BS150SS	BS200SS	BCF200SS
Machined Stainless Steel Finish			
BC150MS	BS150MS	BS200MS	BCF200MS
Machined Nickel Bronze Finish			
BC150MN	BS150MN	BS200MN	BCF200MN

Made to Order Products & Codes

150mm Circular Grate	150mm Square Grate	200mm Square Grate	200mm Vinyl Sheet Grate
Polished Stainless Steel Finish			
BC150PS	BS150PS	BS200PS	BCF200PS
Satin Nickel Bronze Finish			
BC150SN	BS150SN	BS200SN	BCF200SN

Vertical spigot drain bodies



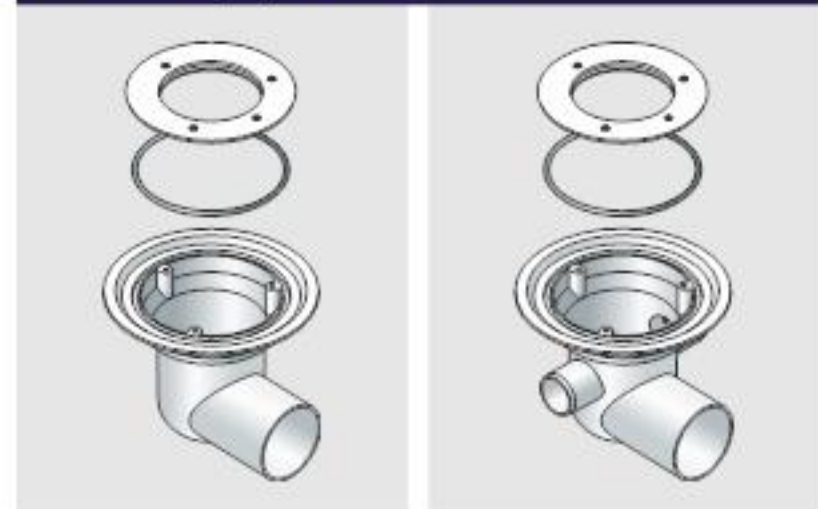
Vertical drain body
(without inlets)

BVS100

Vertical drain body
(with inlets)

BVS100/A

Horizontal spigot drain bodies



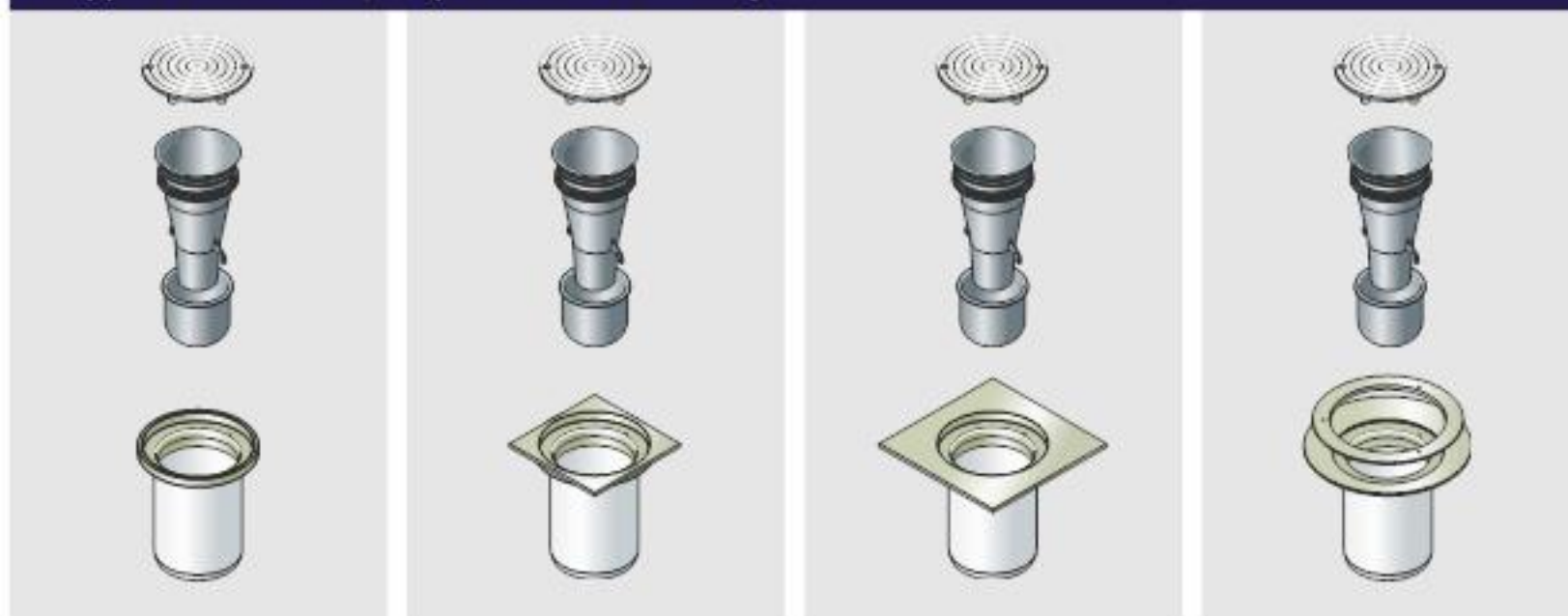
Horizontal drain body
(without inlets)

BHS100

Horizontal drain body
(with inlets)

BHS100/A

Trapped drain: Grate, Trap and Bezel assembly



Standard Products & Codes

150mm Circular Grate	150mm Square Grate	200mm Square Grate	200mm Vinyl Sheet Grate
Satin Stainless Steel Finish			
BC150SS/T	BS150SS/T	BS200SS/T	BCF200SS/T
Machined Stainless Steel Finish			
BC150MS/T	BS150MS/T	BS200MS/T	BCF200MS/T
Machined Nickel Bronze Finish			
BC150MN/T	BS150MN/T	BS200MN/T	BCF200MN/T

Made to Order Products & Codes

150mm Circular Grate	150mm Square Grate	200mm Square Grate	200mm Vinyl Sheet Grate
Polished Stainless Steel Finish			
BC150PS/T	BS150PS/T	BS200PS/T	BCF200PS/T
Satin Nickel Bronze Finish			
BC150SN/T	BS150SN/T	BS200SN/T	BCF200SN/T

Selection, specification and ordering

Use the tables to determine the drain body, grate assembly and finish you require by citing the appropriate reference code.

All four drain body types will accept any of the grate assembly options shown, both untrapped and trapped.

Note:
Solid plate grates are also available on request.



Trap



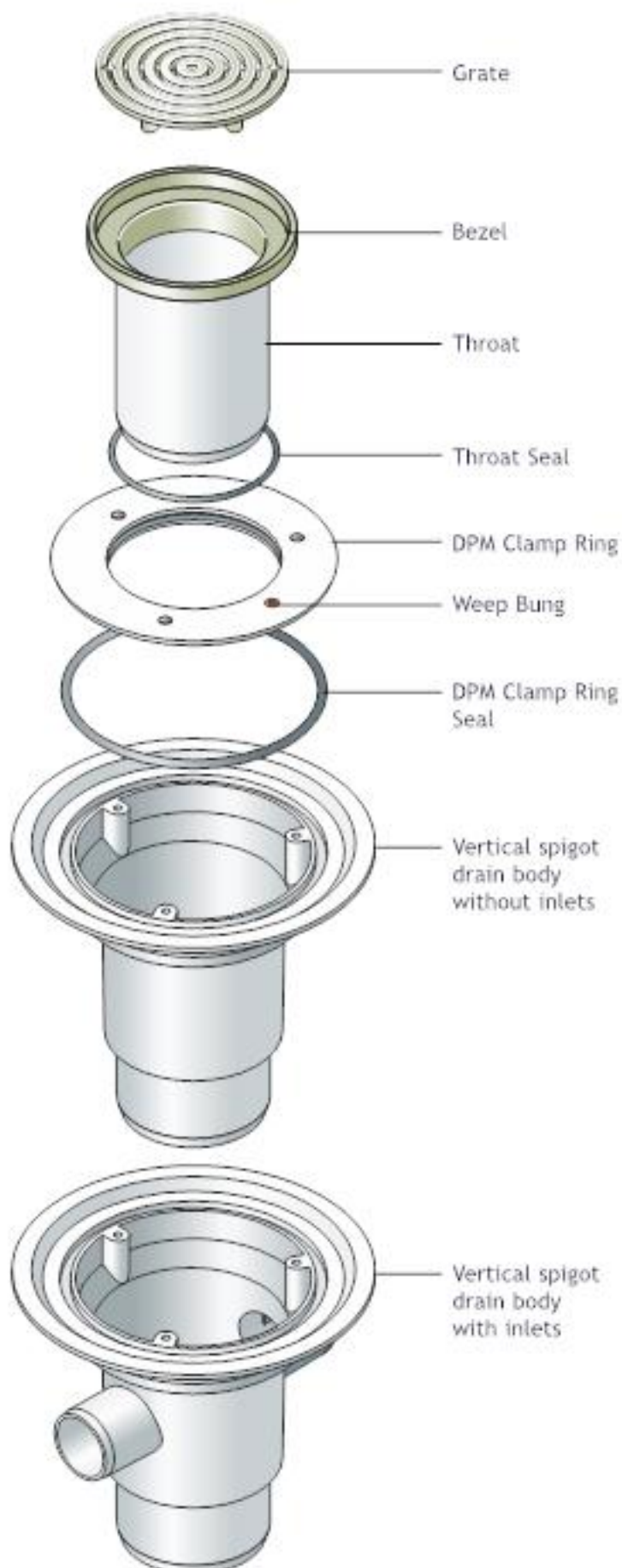
Trap

B100/trap

Note: Traps can be ordered separately by citing the above Code

Untrapped Outlets: Vertical and Horizontal

Vertical Drain Components



For use where an integral trap is not required. The vertical 110mm spigot Floor Drain is available with or without side inlets and is supplied as two separate assemblies:

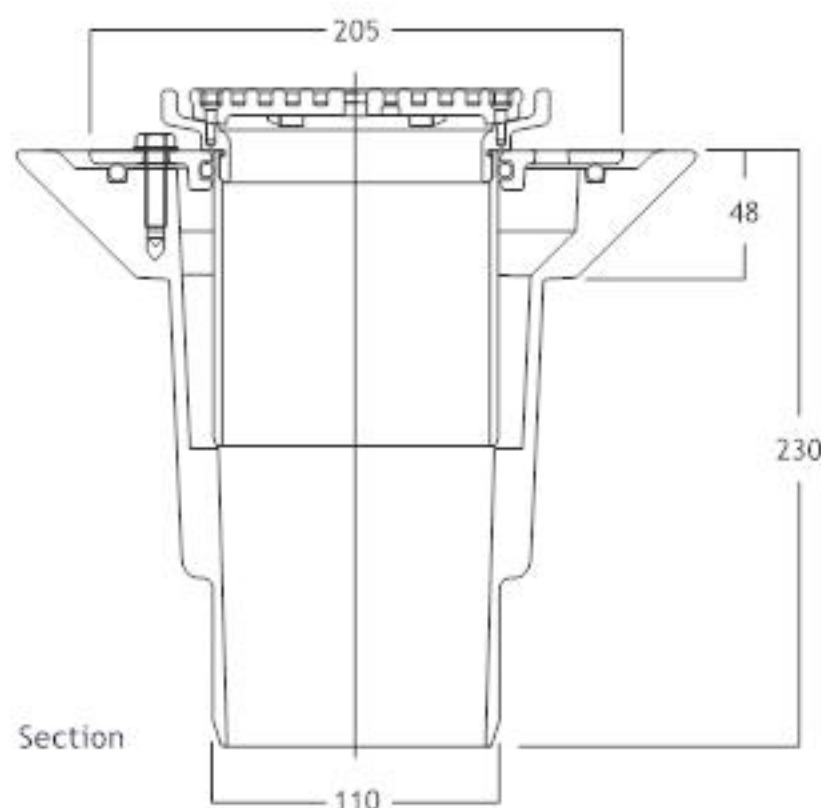
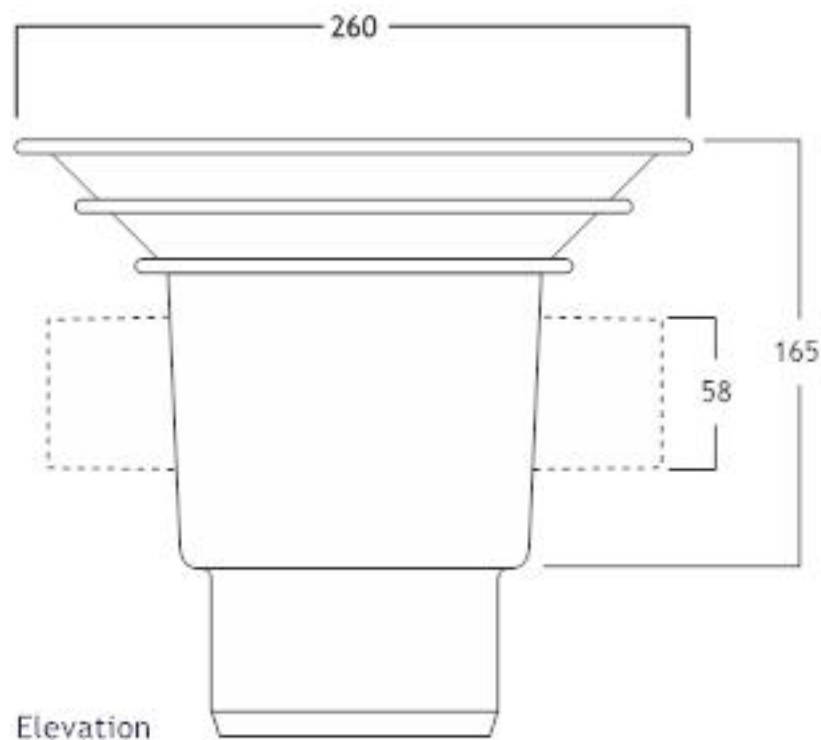
■ Grate Assembly

Consists of stainless steel or nickel bronze grate and bezel, attached to an adjustable smooth sliding throat in white PVC-U.

■ Body Assembly

Consists of a clamping collar and drain body, both in white polyester coated aluminium, and a neoprene 'O' ring seal.

Drain Body Dimensions



Horizontal Drain Components



For use where an integral trap is not required. The horizontal 110mm spigot Floor Drain is available with or without side inlets and is supplied as two separate assemblies:

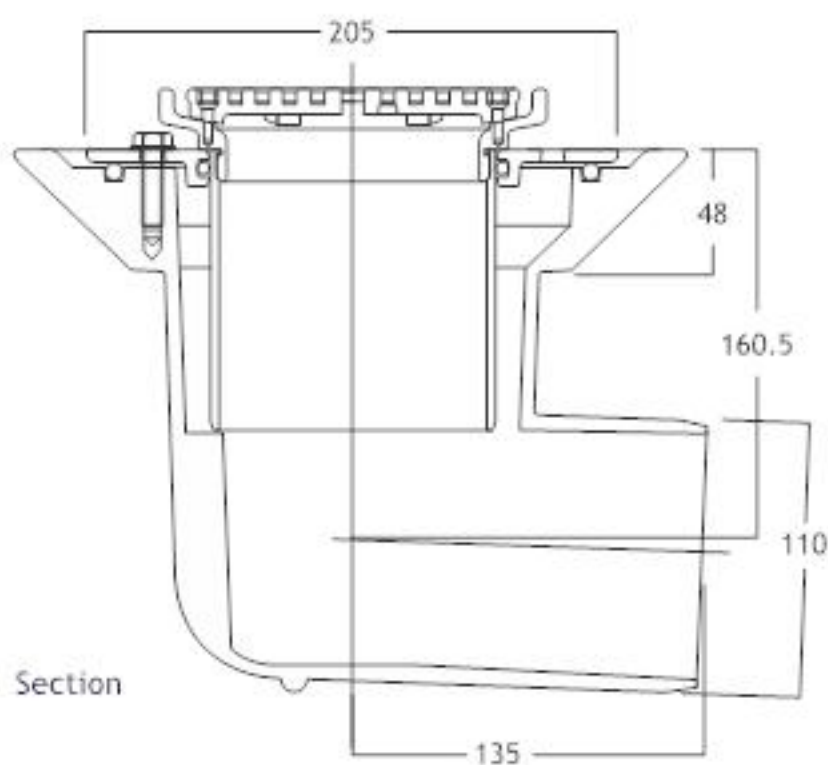
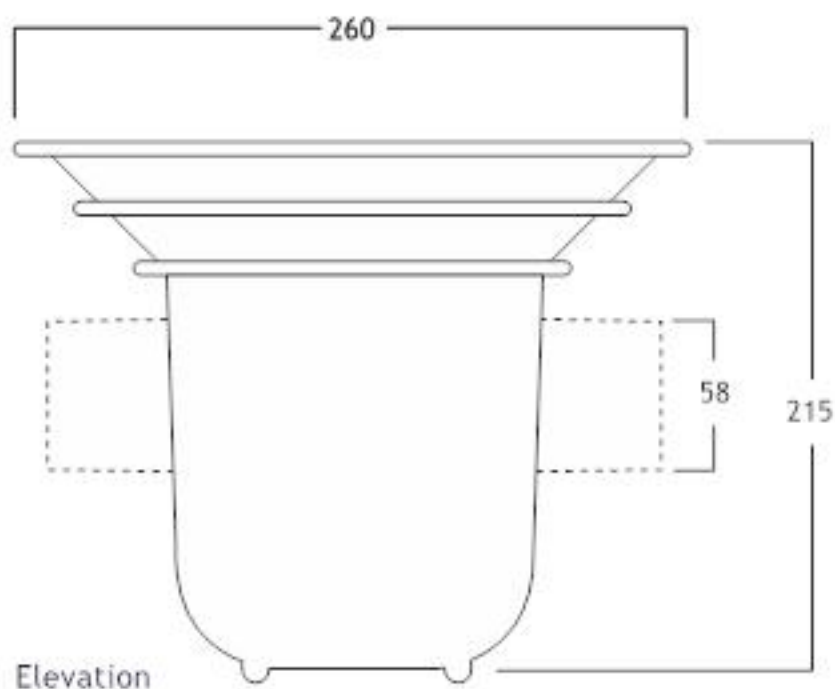
■ Grate Assembly

Consists of stainless steel or nickel bronze grate and bezel, attached to an adjustable smooth sliding throat in white PVC-U.

■ Body Assembly

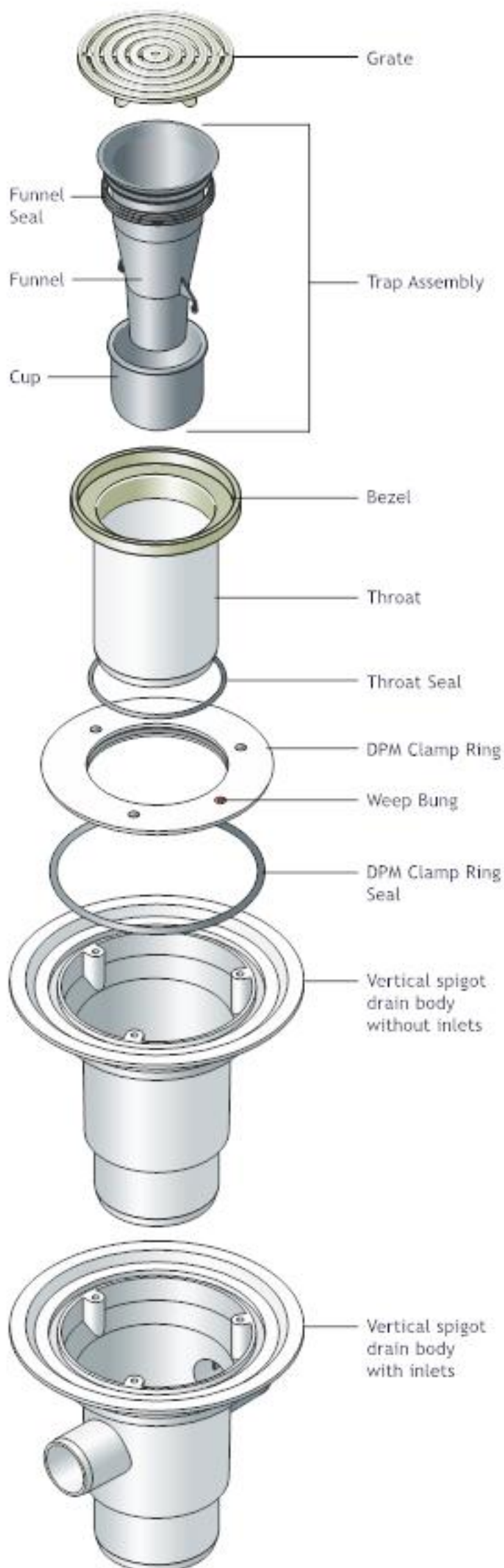
Consists of a clamping collar and drain body, both in white polyester coated aluminium, and a neoprene 'O' ring seal.

Drain Body Dimensions



Trapped Outlets: Vertical and Horizontal

Vertical Drain Components



The Trapped Floor Drain incorporates an integral trap assembly with a 50mm water seal and 110mm vertical spigot outlet. It is available with or without side inlets and is supplied as two separate assemblies:

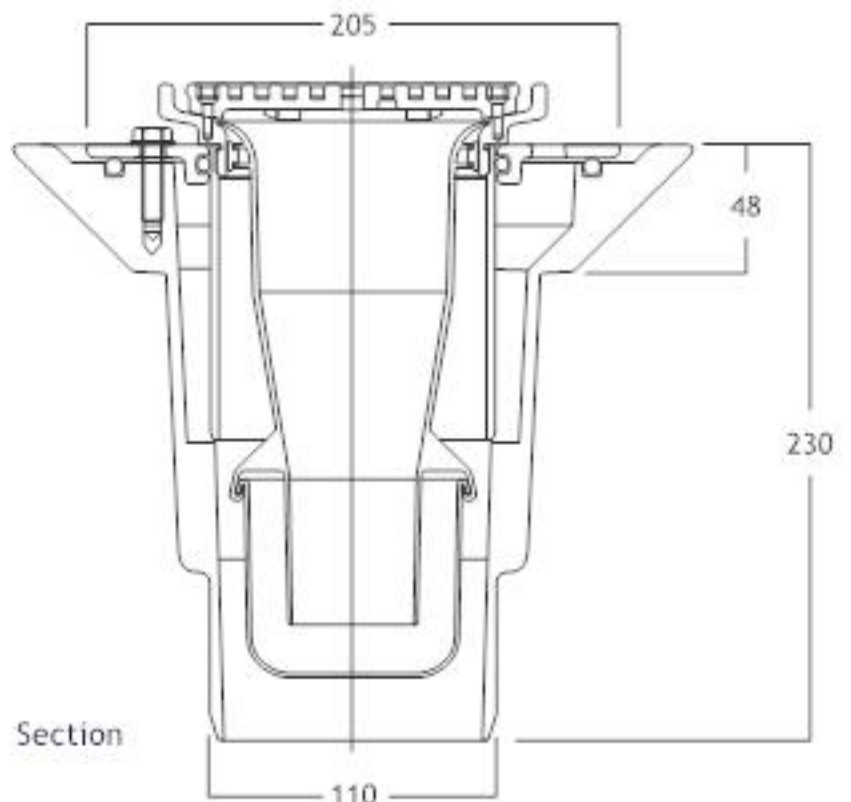
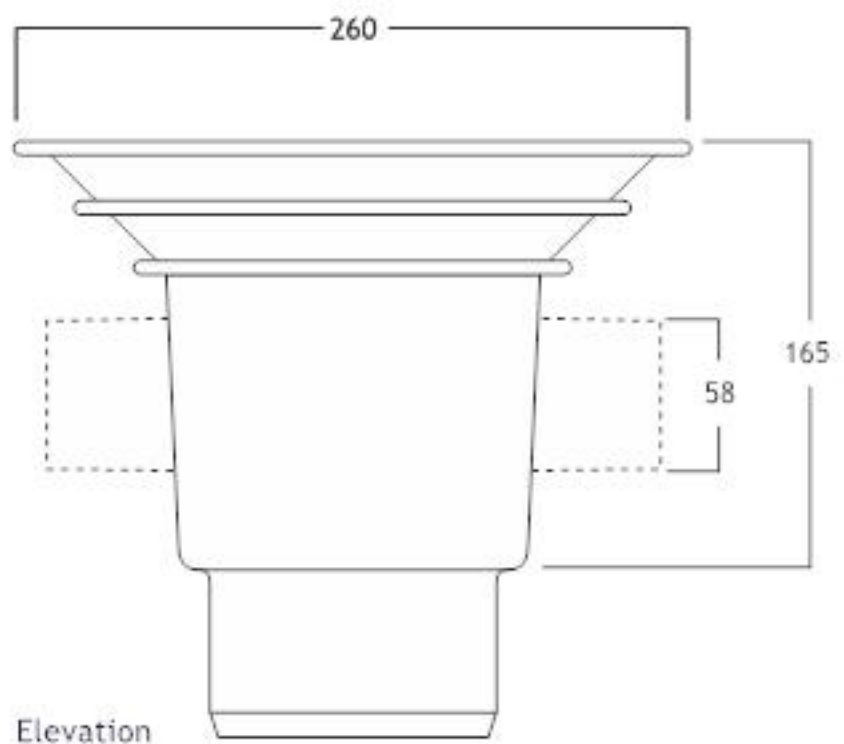
■ Grate Assembly

Consists of stainless steel or nickel bronze grate and bezel, attached to an adjustable smooth sliding throat in white PVC-U.

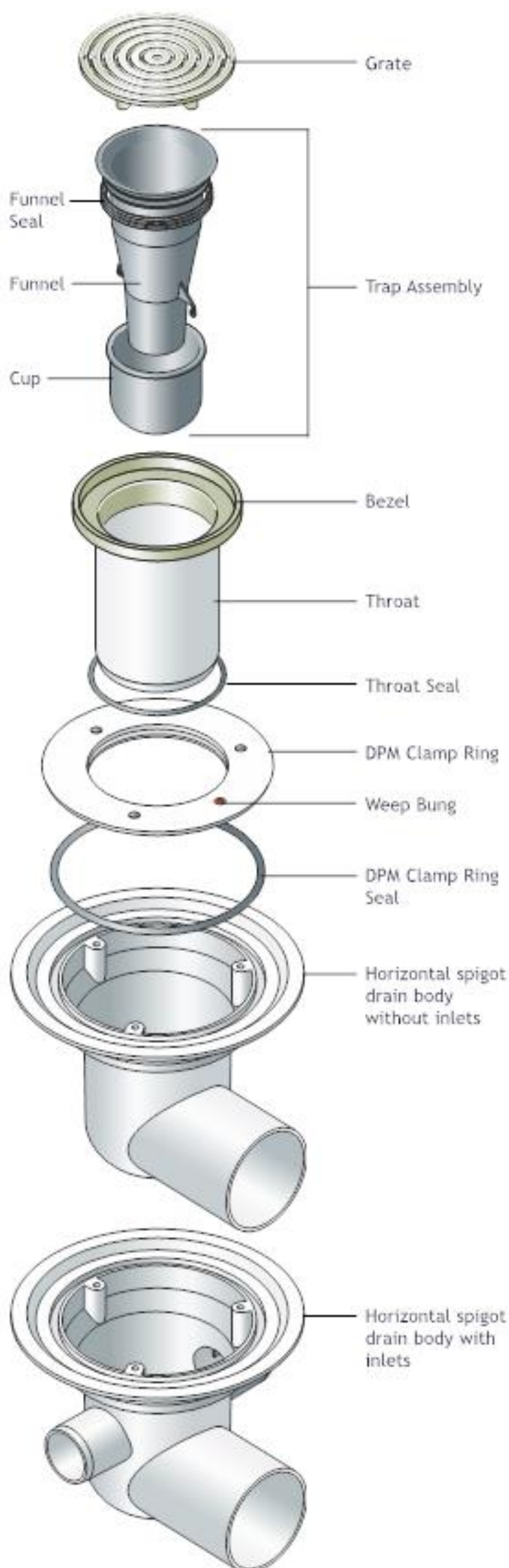
■ Body Assembly

Consists of a clamping collar and drain body, both in white polyester coated aluminium, neoprene 'O' ring seal, and an integral PVC-U funnel trap.

Drain Body Dimensions



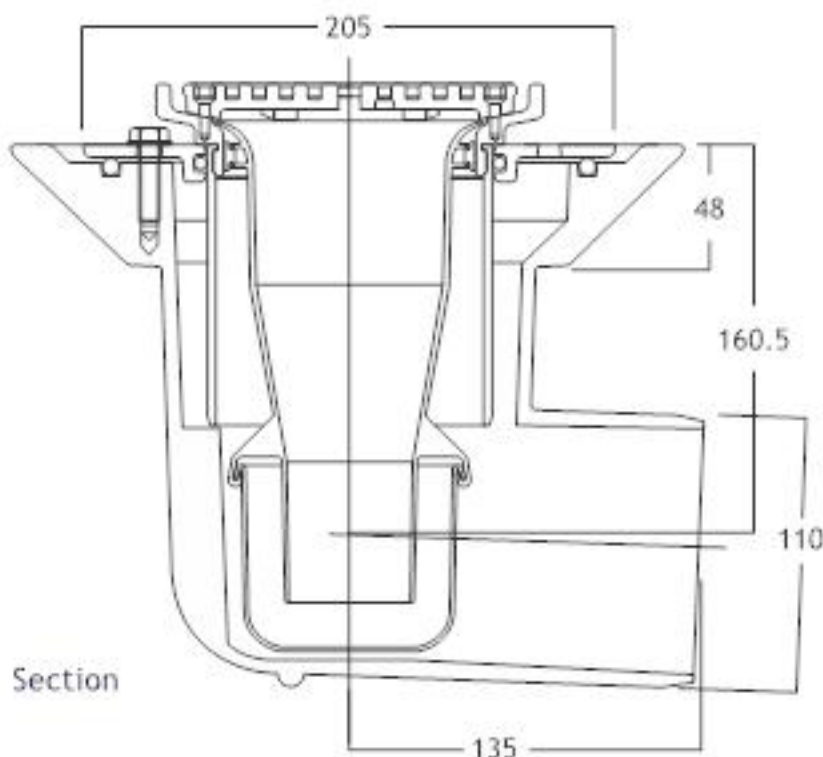
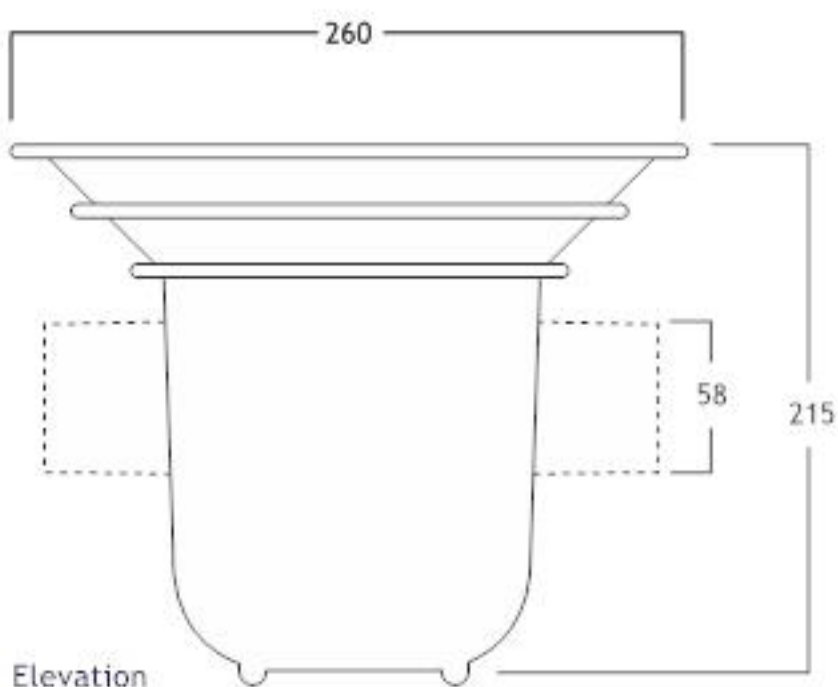
Horizontal Drain Components



The Trapped Floor Drain incorporates an integral trap assembly with a 50mm water seal and 110mm horizontal spigot outlet. It is available with or without side inlets and is supplied as two separate assemblies:

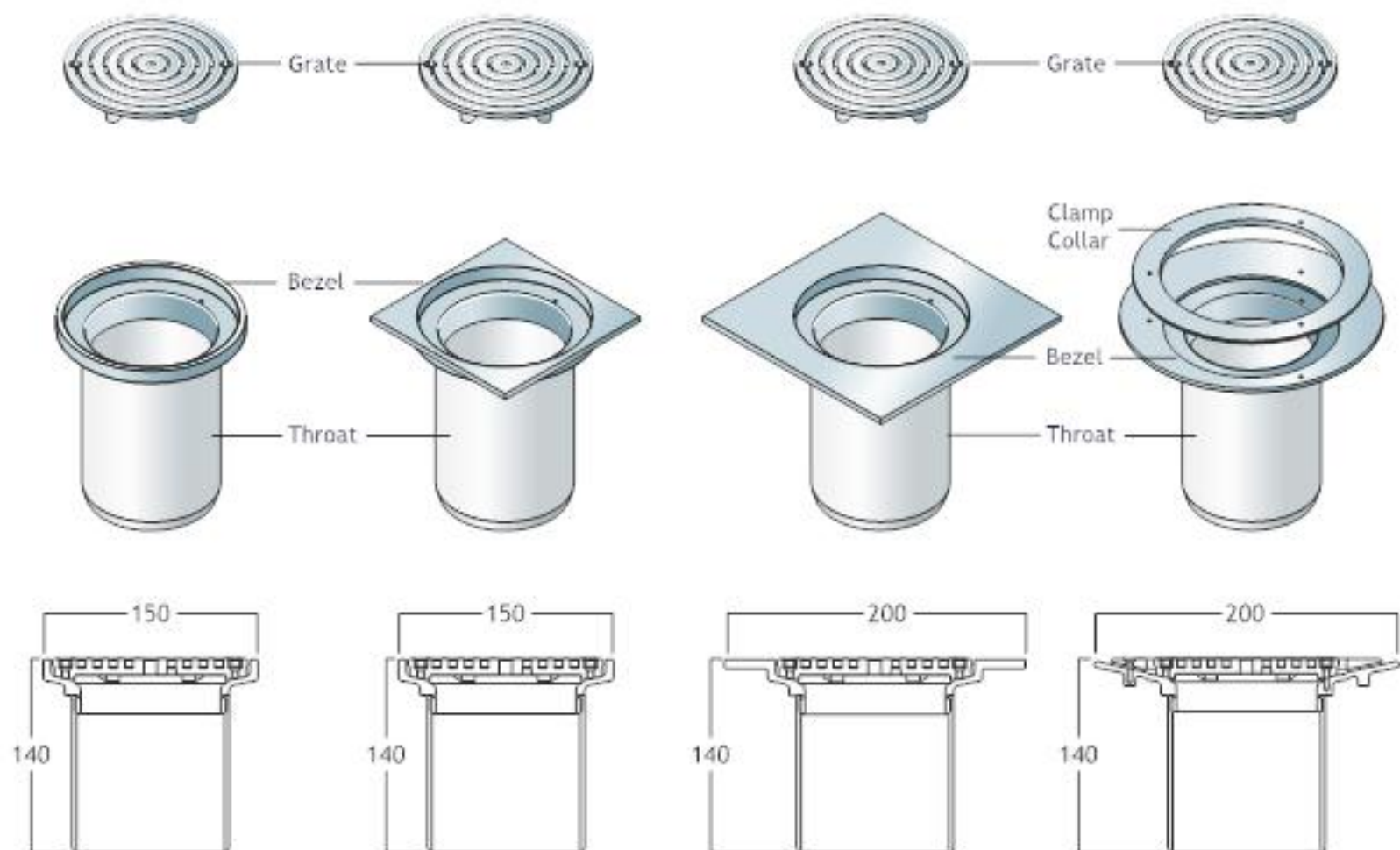
- **Grate Assembly**
Consists of stainless steel or nickel bronze grate and bezel, attached to an adjustable smooth sliding throat in white PVC-U.
- **Body Assembly**
Consists of a clamping collar and drain body, both in white polyester coated aluminium, neoprene 'O' ring seal, and an integral PVC-U funnel trap.

Drain Body Dimensions



Grate Assemblies: Dimensions and Finishes

Stainless Steel Assembly Options



*Note: Machined and Satin are standard finishes
Polished finish is made to order*

Solid plate grates are also available

See pages 4 to 5 for component codes



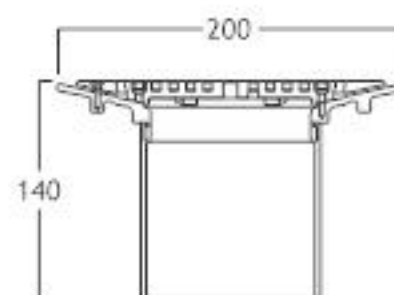
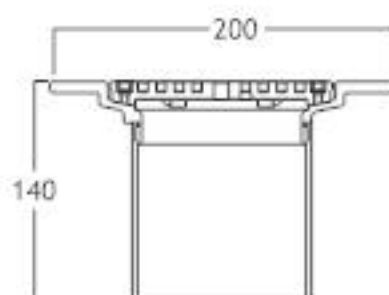
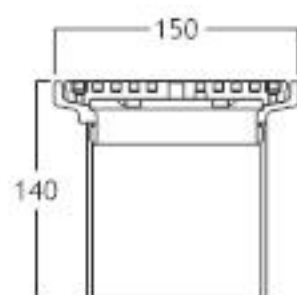
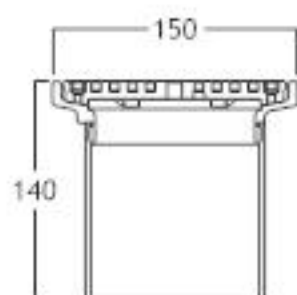
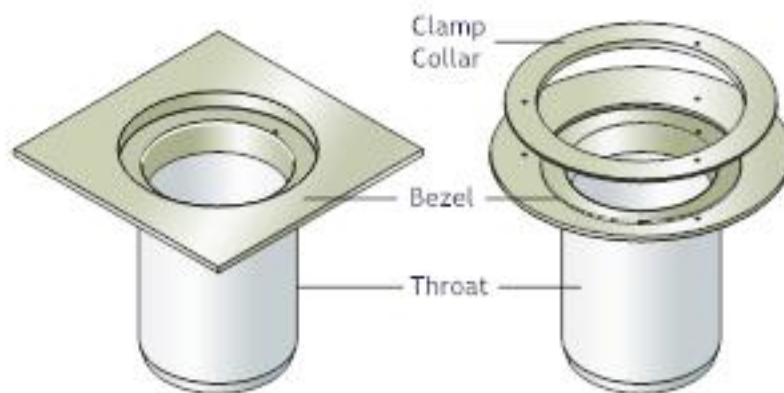
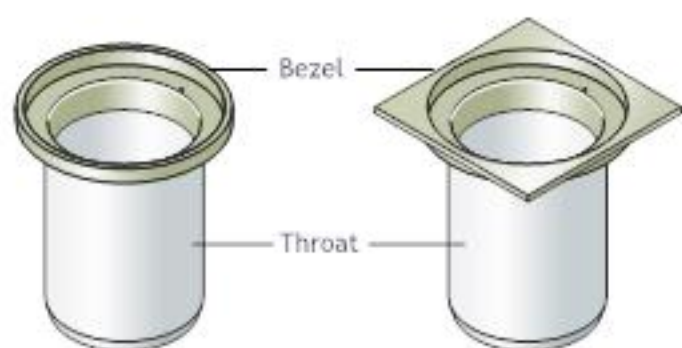
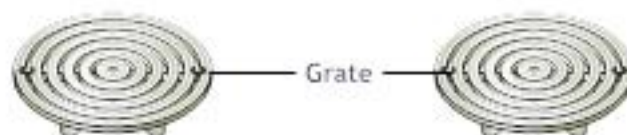
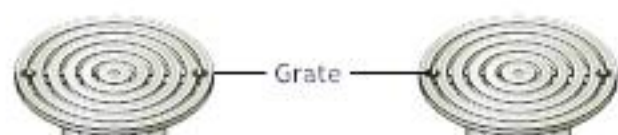
Grate

Nickel Bronze Assembly Options



Satin finish

Machined finish



*Note: Machined is a standard finish
Satin finish is made to order*

Solid plate grates are also available

See pages 4 to 5 for component codes



Grate

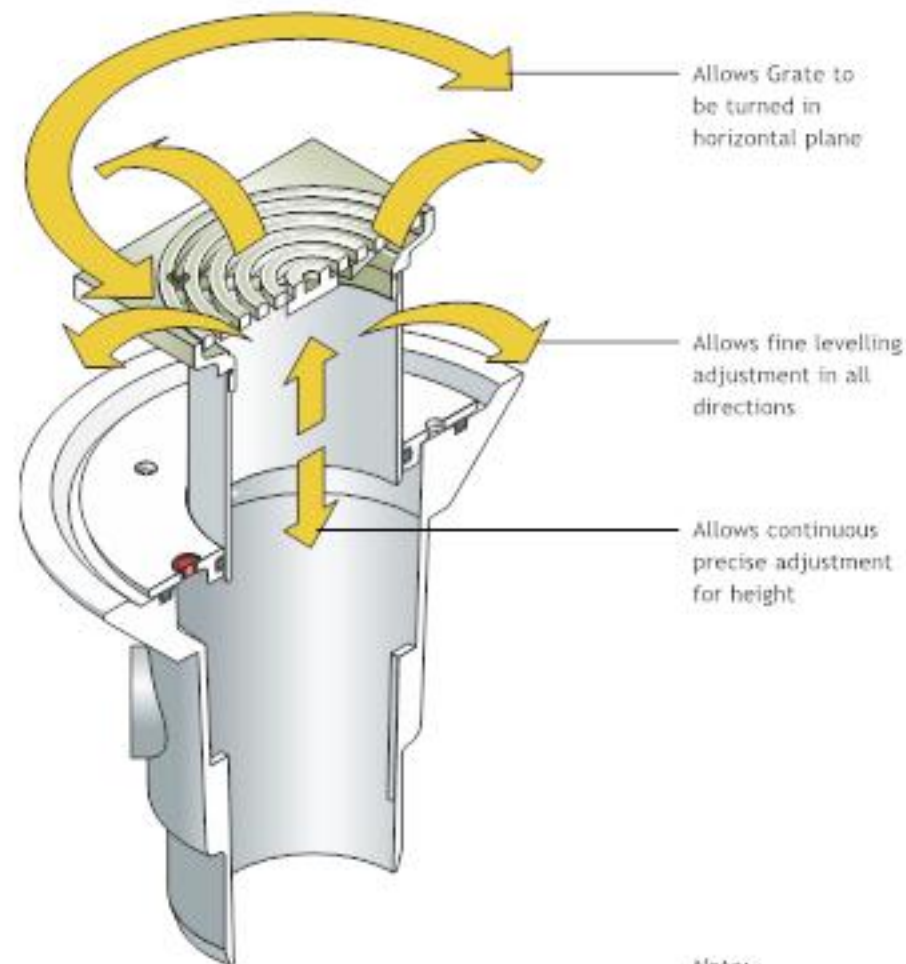
Grate Adjustment

Fine Adjustment

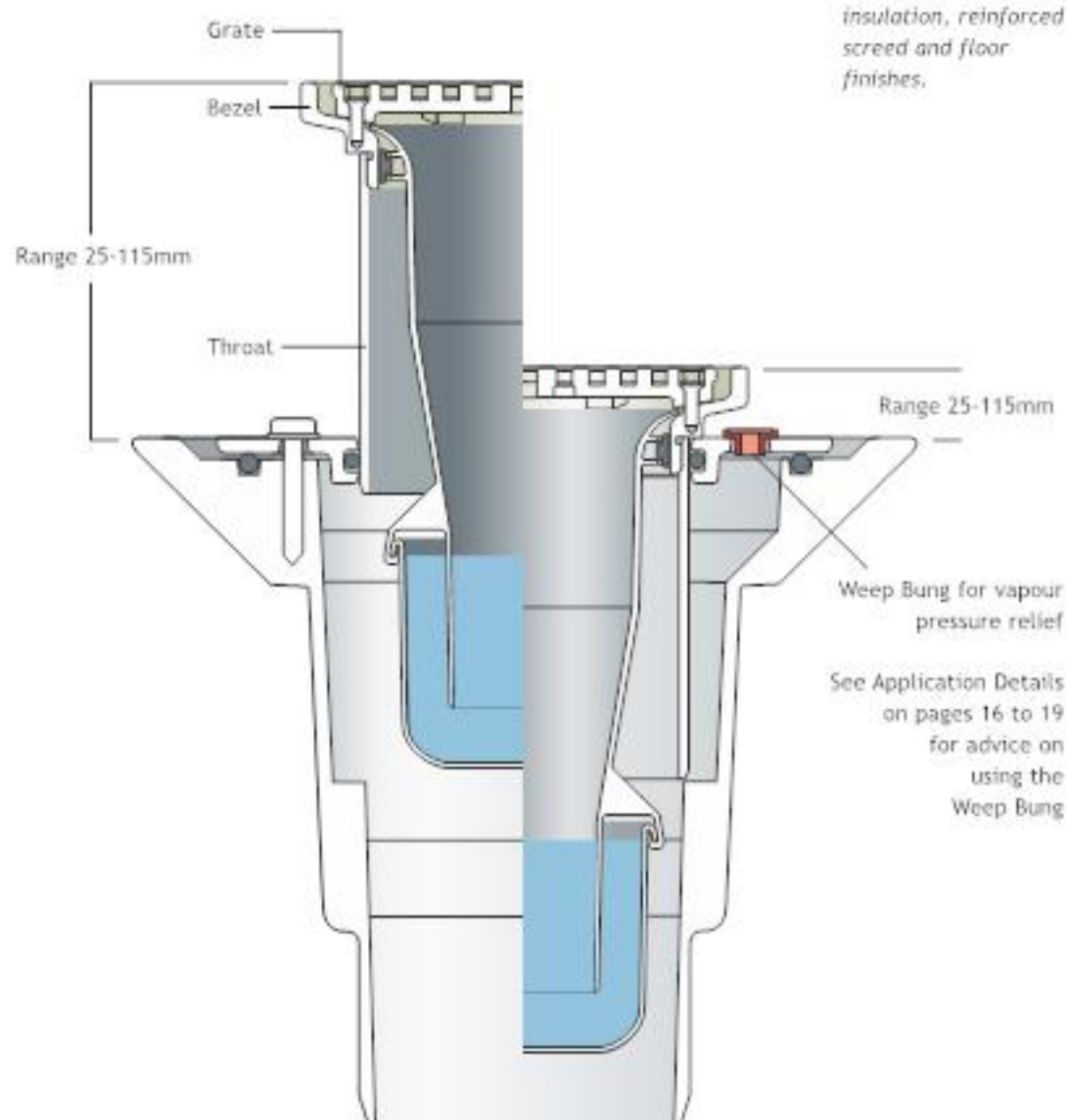
The smooth sliding Throat – unique to the Harmer Floor Drain – provides exceptional flexibility and accuracy of adjustment. The Throat is not threaded; it slides on a Throat Seal (to BS 2494), allowing adjustment to the finest tolerances.

The unique Harmer Floor Drain sliding Throat permits:

- Continuous height adjustment – in a vertical plane, ranging from 25-115mm above dpm with standard Throat component.
- Continuous rotational adjustment – through 360°. The capacity for fine adjustment is particularly useful for aligning square Bezels with tile patterns.
- Multi-directional fine levelling adjustment – to compensate for minor irregularities in floor finishes.



Note:
Extended Throats can be made to order to accommodate the accumulated buildup of constructional elements such as insulation, reinforced screed and floor finishes.



Suspended Floor Drainage

Harmer Floor Pipe Adaptors

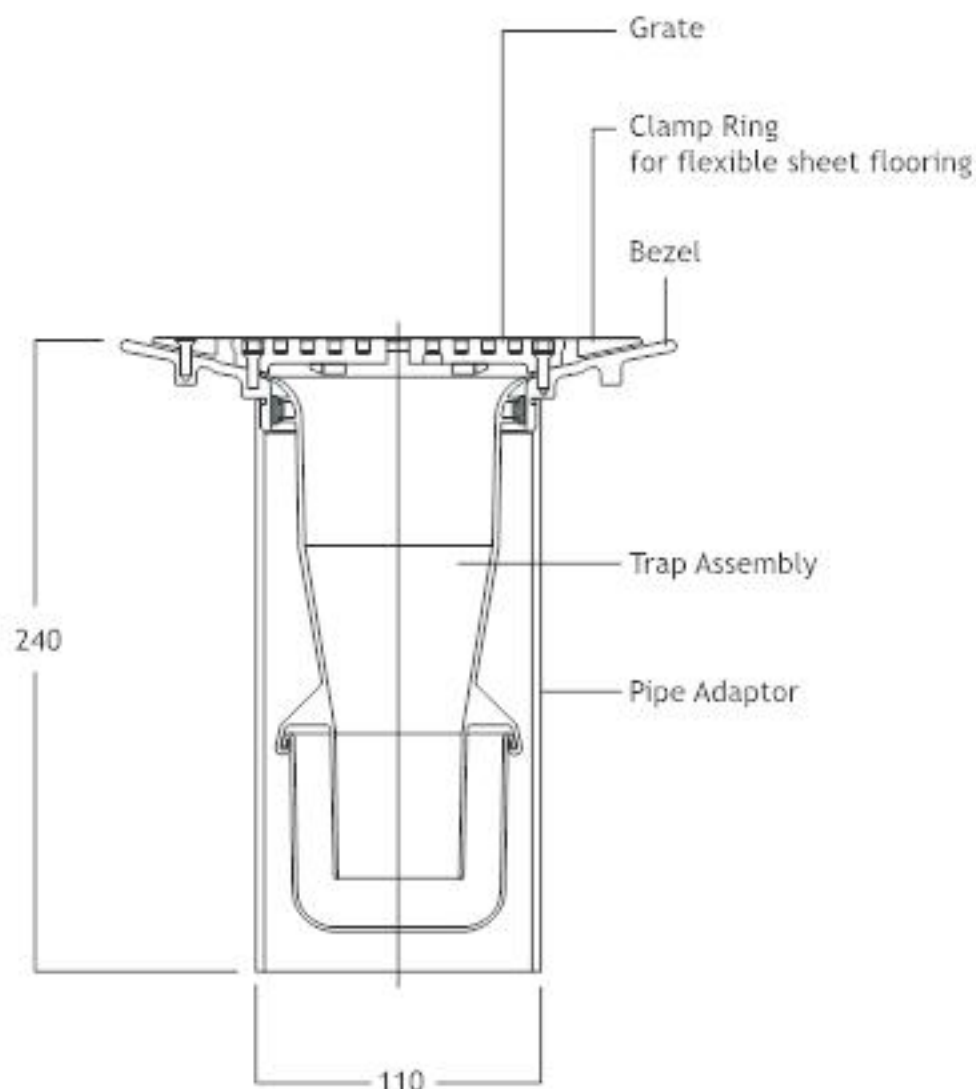
Harmer Floor Pipe Adaptors are the quick and efficient way to incorporate a Grate and trapped pipe connection within a suspended floor.

Waterproofing is achieved in conjunction with a vinyl floor covering bonded and clamped into the appropriate Harmer Grate assembly (BCF200).

Harmer Pipe Adaptors are manufactured in SML lightweight cast iron (which is considered non-combustible in current Building Regulations), HDPE and PVC-U and provide complete continuity of material for onward pipe connection.

Harmer Pipe Adaptors are 240mm length but can be made longer if required.

Refer to pages 10 and 11 for choices of either stainless steel or nickel bronze Grate finishes.



Component Range: Pipe Adaptors

Description	Code Ref
100mm Cast Iron	ADP100/SML
100mm HDPE	ADP100/HDPE
100mm PVC-U	ADP100/PVCU

See page 19 for pipe adaptor application details

Section through trapped Grate/Pipe Adaptor assembly



Pipe Connections

Connection to Pipework

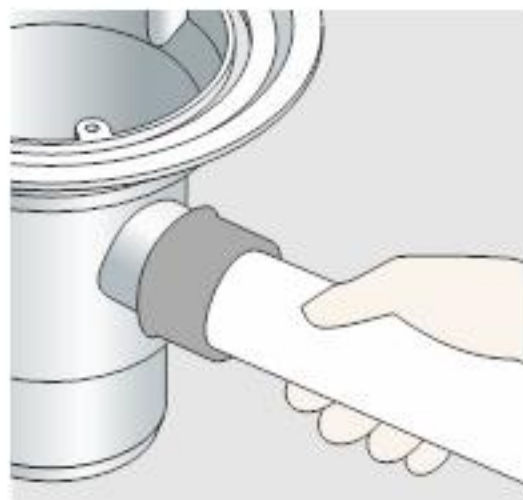
Harmer Floor Drains are designed for connection with various pipe sizes.

Side Inlet Pipes

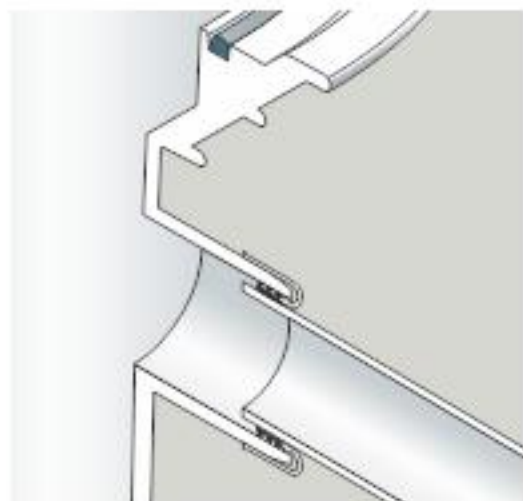
- 38mm – connection uses Harmer Swift spigot adaptor coupling.
- 50mm – connection to PVC-U uses Fernco (059-059) or Flexseal (DC65). Adapted connections when using McAlpine compression coupling or Osma ring seal connector are to order.



1. Puncture diaphragm of Harmer-Swift coupling.



2. Insert plain end of 38mm waste pipe into coupling. If necessary, use suitable lubricant.



3. Push until further movement is prevented by the internal stop lug.

Outlet Pipe

- 100mm – connection to PVC-U uses a push-fit coupling.
- 100mm – connection to cast iron uses two-part clamp coupling **OR** stainless steel twin bolt band coupling.
- Other couplings are available from Fernco and Flexseal for connection to clayware.

Setting up the Grate and Trap Assembly

The Grate and Trap Assembly consists of the foul air Trap factory fitted to the Grate, with the white height-adjustable Throat also attached.



Grate and Trap Assembly

Follow the procedure below to set up the Grate/Trap Assembly correctly during the drainage installation.

- Remove the Dirt Cover.
- Apply silicone lubricant to the Throat Seal.
- Apply silicone lubricant to the height-adjustable Throat.
- Push the Grate and Trap Assembly into the drain body.
- Set to the required height allowing for underfloor insulation, screed and floor finish.
- Prime the Trap with clean water.
- Cover Grate surface to protect from following trades.



Maintenance and Specification

Maintenance

The bodies of Harmer Floor Drains have a smooth polyester coating which prevents adherence of foreign matter. During handling, installation and maintenance avoid chipping this protective coating.

The high quality Grates and Bezels are maintenance free but should be inspected periodically and cleared of any trapped matter.

If drains are not used for a period of time the trap water may evaporate or become fetid. To remedy this, there is no need to remove the Grate, simply reprime the Trap by pouring clean water through the drain. **NEVER USE BLEACH OR CAUSTIC CLEANING AGENTS.**

Should it be necessary to access the drain for maintenance or rodding purposes **THE TRAP MUST FIRST BE REMOVED.** The foul air Trap is a factory assembled unit consisting of three parts and is located within the Grate Assembly.

Equipment

- Phillips posidrive screwdriver.
- Latex rubber gloves.
- Paper towels.
- Bucket of warm disinfected water.

To Remove the Trap

- Put on protective latex gloves.
- Remove the two grate securing screws.
- Dry all surfaces.
- Remove the black Funnel by simultaneously pulling on one side and lifting upwards.

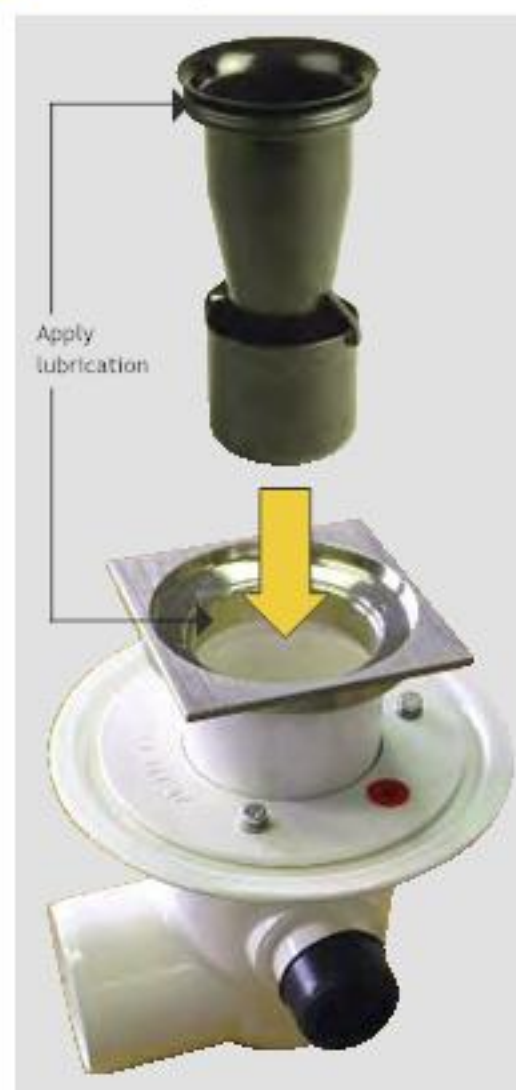
OR

- Use a 300mm long wire hook to lift the funnel out.

The Trap Cup unhooks from the funnel and both components should be cleaned in disinfected water.

To Replace the Trap

- Apply silicone lubricant to the Funnel Seal.
- Apply silicone lubricant to the matching surface of the Bezel Throat.
- Push fit the Trap into the Bezel Throat.
- Replace the two grate securing screws.
- Reprime the Trap with clean water.
- Dispose of dirty water.
- Now wash your hands.



Periodic Usage

If drains are not used for long periods of time or only intermittently, it is recommended that a Solid Plate Cover be installed instead of the standard grate.

Security

Generally, grates are secured by two Phillips screws but special security fixing options are available from Alumasc. These screws can only be loosened by means of a special screwdriver attachment.

Specifying/Ordering

Floor Drains in Showers

Item: Harmer Floor Drains

Floor Construction: Sheet vinyl over insulated solid ground floor slab.

Manufacturer: Alumasc Exterior Building Products Ltd, White House Works, Bold Road, Sutton, St Helens, Merseyside WA9 4JG.

Tel: 01744 648400, **Fax:** 01744 648401.

Email: info@alumasc-exterior.co.uk

Web: www.alumasc-exterior.co.uk

Reference: Harmer Floor Drains

Body type/material: Vertical spigot with side inlets manufactured from LM6 grade aluminium ref: BVS100/A

Grate finish/material: Satin finish stainless steel complete with Trap Assembly ref: BCF200SS/T

Floor Drains in Changing Rooms

Item: Harmer Floor Drains

Floor Construction: 150mm ceramic tiles over insulated solid ground floor slab.

Manufacturer: Alumasc Exterior Building Products Ltd, White House Works, Bold Road, Sutton, St Helens, Merseyside WA9 4JG.

Tel: 01744 648400, **Fax:** 01744 648401.

Email: info@alumasc-exterior.co.uk

Web: www.alumasc-exterior.co.uk

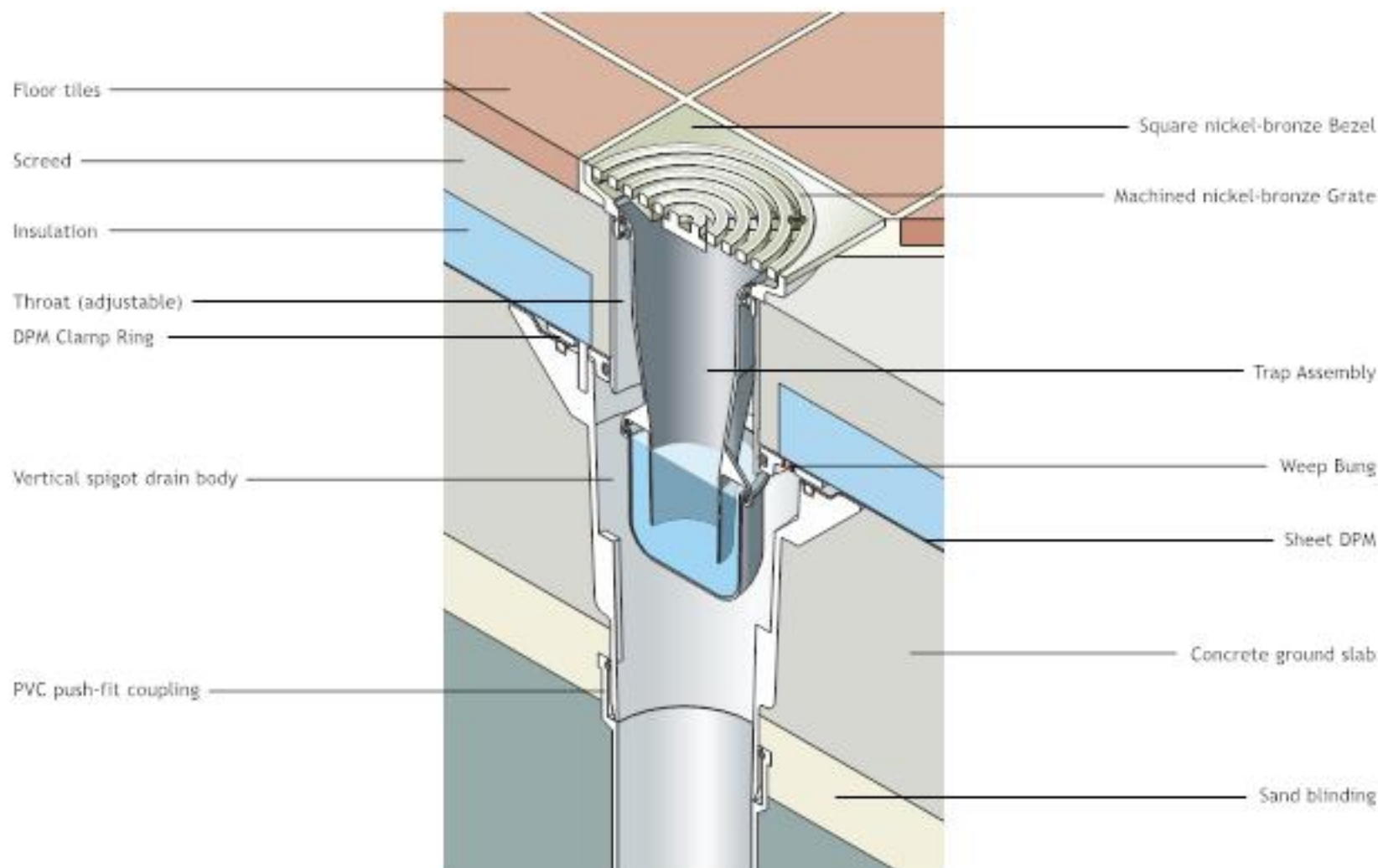
Reference: Harmer Floor Drains

Body type/material: Horizontal spigot with side inlets manufactured from LM6 grade aluminium ref: BHS100/A

Grate finish/material: Machine finish nickel bronze complete with Trap Assembly ref: BS150MN/T

Application Details

Trapped Vertical Harmer Floor drain (BVS100) with BS150MN/T trapped grating assembly in insulated tiled ground floor with sheet DPM



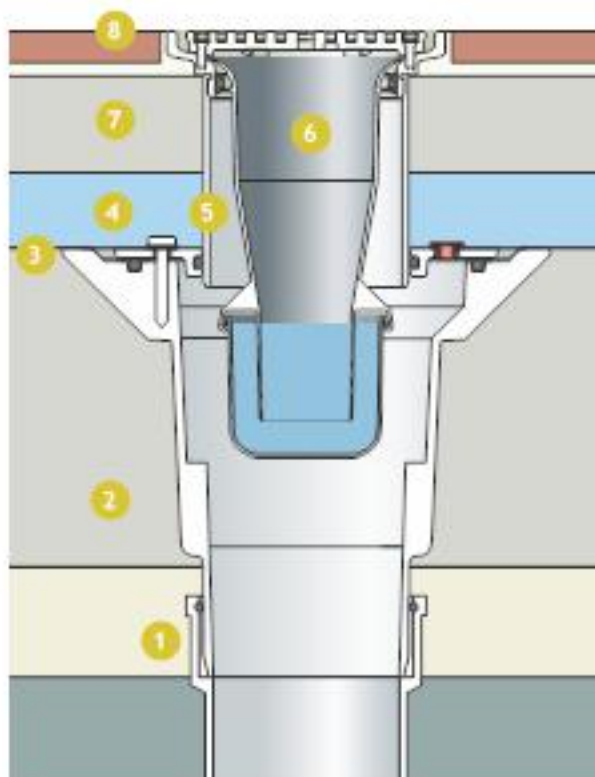
Weep Bung

The DPM Clamp Ring has a red Weep Bung to relieve the build-up of vapour pressure where appropriate.

- For tiled floor finish applications, the Weep Bung should be removed.
- For sheet vinyl floor finish applications, the Weep Bung should be left in.
- Pressure test drains before installation.

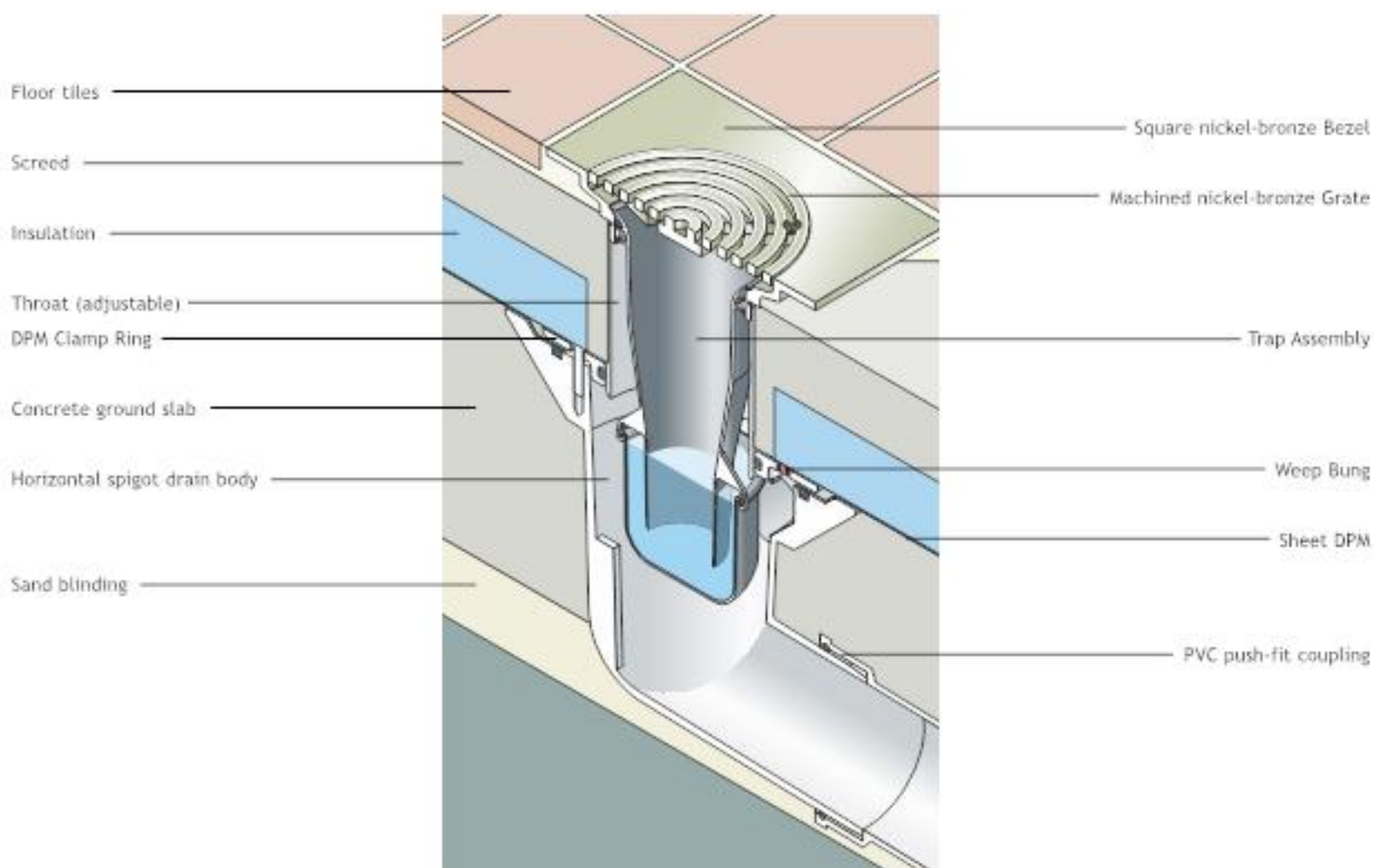
Sitework

- 1 Connect the floor drain body to pipework. Secure the pipework in position so that the rim of the floor drain body will be level with the finished slab.
- 2 Lay concrete ground slab.
- 3 Lay the DPM. Cut a hole in the membrane and clamp firmly to the floor drain body by bolting the DPM Clamp Ring in position.
- 4 Lay the insulation.
- 5 Remove the Dirt Cover and push the sliding Throat of the Grate and Bezel Assembly into the DPM Clamp Ring. Adjust for height by sliding up or down against the Throat Seal so that height of Grate above the DPM is equal to the minimum screed thickness.



- 6 Connect the Funnel, Cup and Funnel Seal to form the Trap Assembly. Push the assembly into the Throat. Connect Grate to Bezel.
- 7 Lay screed to falls.
- 8 Lay floor tiles and make any required further fine adjustment to Grate prior to grouting.

Trapped horizontal Harmer Floor drain (BHS100) with BS200MN/T trapped grating assembly in insulated tiled ground floor with sheet DPM



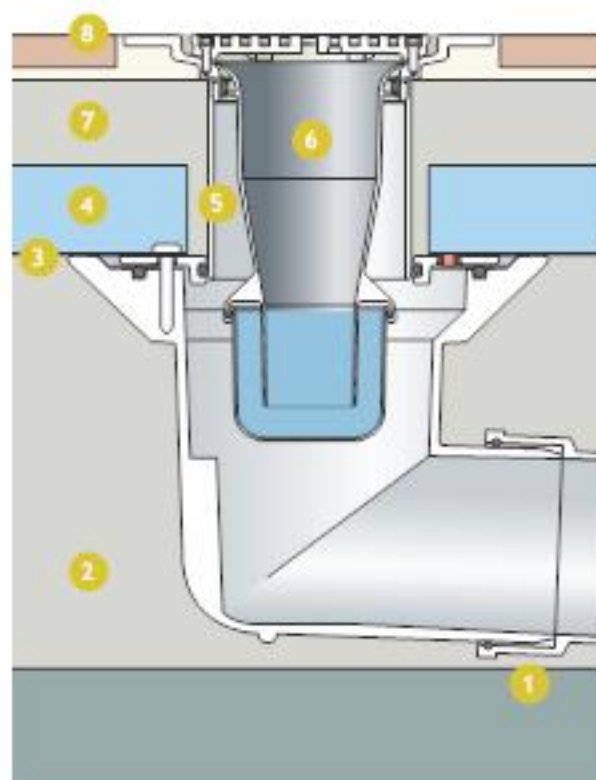
Weep Bung

The DPM Clamp Ring has a red Weep Bung to relieve the build-up of vapour pressure where appropriate.

- For tiled floor finish applications, the Weep Bung should be removed.
- For sheet vinyl floor finish applications, the Weep Bung should be left in.
- Pressure test drains before installation.

Sitework

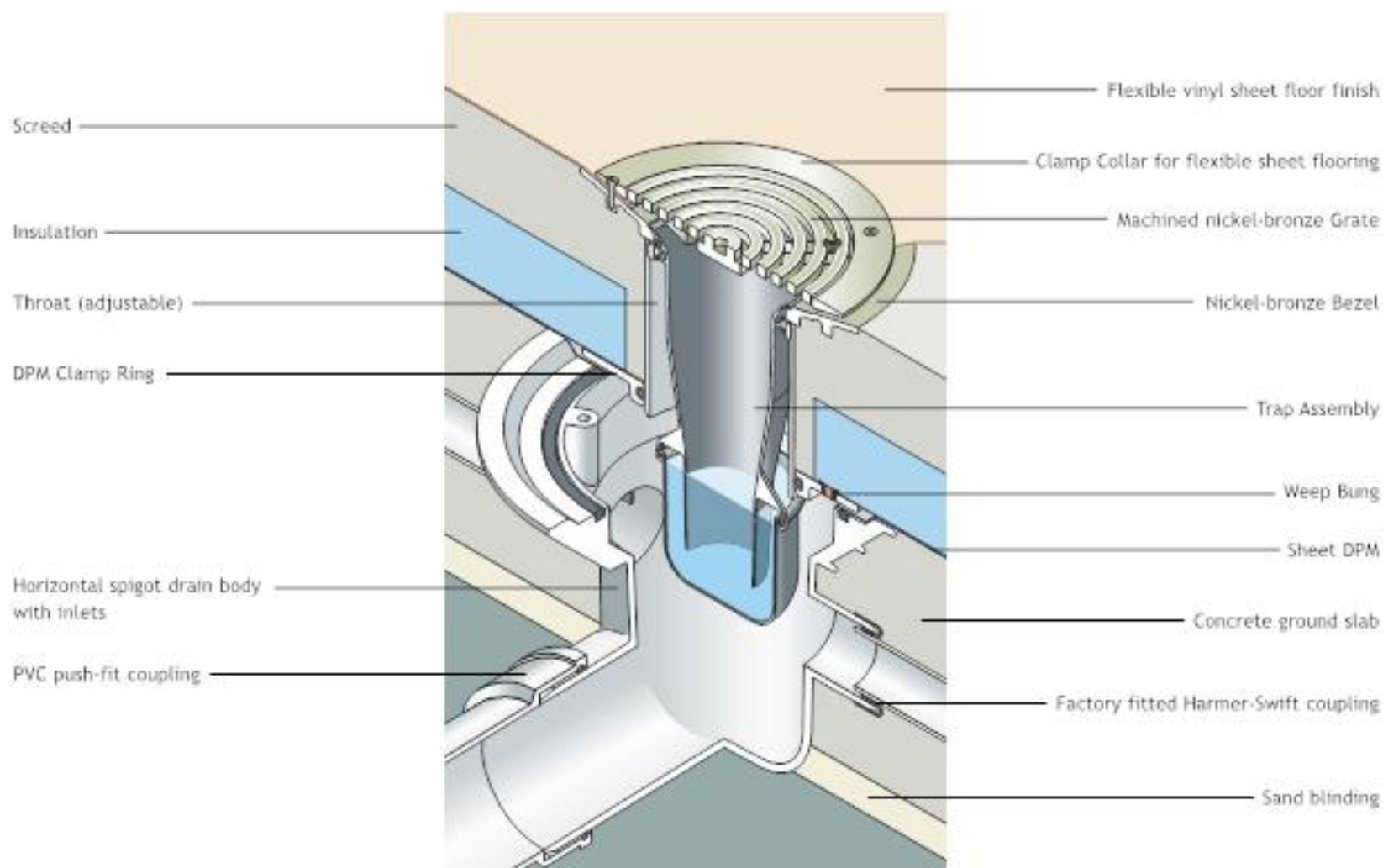
- 1 Connect the floor drain body to pipework. Secure the pipework in position so that the rim of the floor drain body will be level with the finished slab.
- 2 Lay concrete ground slab.
- 3 Lay the DPM. Cut a hole in the membrane and clamp firmly to the floor drain body by bolting the DPM Clamp Ring in position.
- 4 Lay the insulation.
- 5 Remove the Dirt Cover and push the sliding Throat of the Grate and Bezel Assembly into the DPM Clamp Ring. Adjust for height by sliding up or down against the Throat Seal, so that height of Grate above the DPM is equal to the minimum screed thickness.



- 6 Connect the Funnel, Cup and Funnel Seal to form the Trap Assembly. Push the assembly into the Throat. Connect Grate to Bezel.
- 7 Lay screed to falls.
- 8 Lay floor tiles and make any required further fine adjustment to Grate prior to grouting.

Application Details

Trapped horizontal Harmer Floor drain with inlets (BHS100/TA) with BCF200MN/T trapped grating assembly in insulated vinyl covered ground floor with sheet DPM



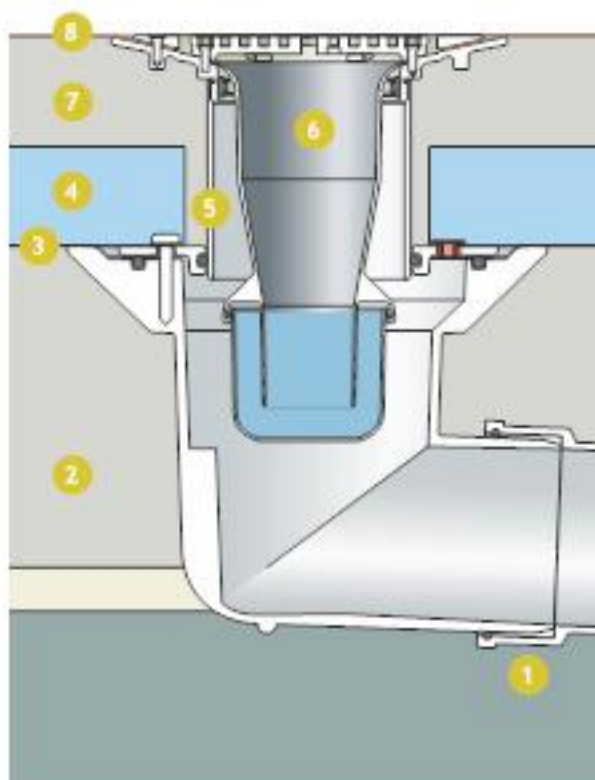
Weep Bung

The DPM Clamp Ring has a red Weep Bung to relieve the build-up of vapour pressure where appropriate.

- For tiled floor finish applications, the Weep Bung should be removed.
- For sheet vinyl floor finish applications, the Weep Bung should be left in.
- Pressure test drains before installation.

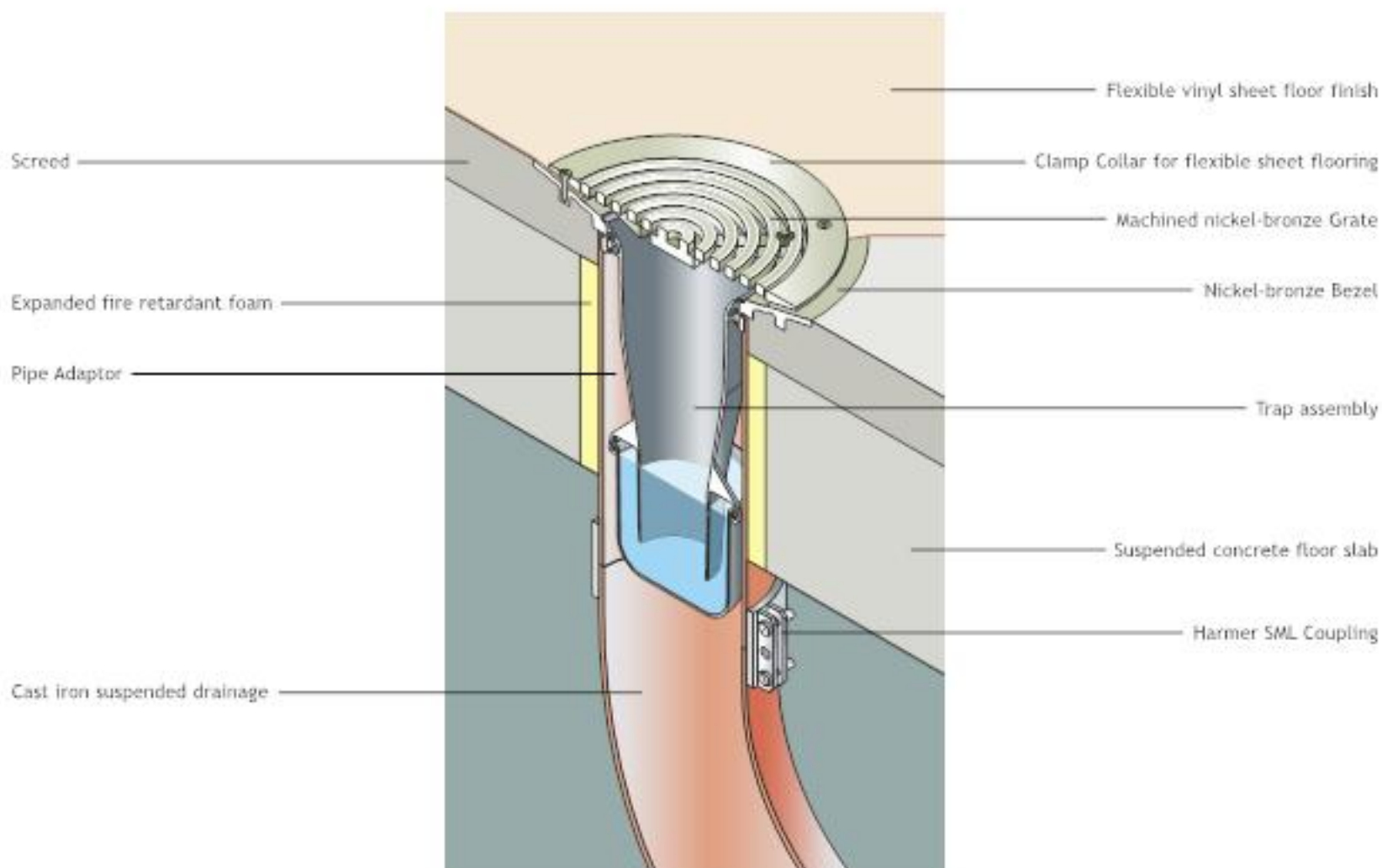
Sitework

- 1 Connect the floor drain body to pipework. Secure the pipework in position so that the rim of the floor drain body will be level with the finished slab.
- 2 Lay concrete ground slab.
- 3 Lay the DPM. Cut a hole in the membrane and clamp firmly to the floor drain body by bolting the DPM Clamp Ring in position.
- 4 Lay the insulation.
- 5 Remove the Dirt Cover and push the sliding Throat of the Grate and Bezel Assembly into the DPM Clamp Ring. Adjust for height by sliding up or down against the Throat Seal, so that height of Grate above the DPM is equal to the minimum screed thickness.



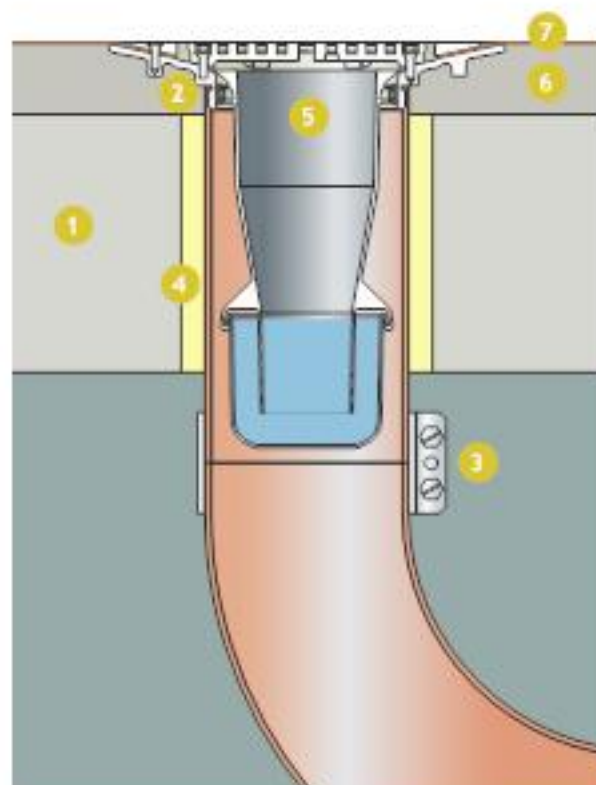
- 6 Connect the Funnel, Cup and Funnel Seal to form the Trap Assembly. Push the assembly into the Throat. Connect Grate to Bezel.
- 7 Lay screed to falls.
- 8 Lay the flexible sheet flooring and screw the Clamp Collar into position to secure the sheet flooring firmly against the Bezel.

Harmer Floor drain with ADP100/SML cast iron adaptor and BCF200MN/T trapped grating assembly in vinyl covered suspended floor



Sitework

- 1 Erect suspended floor slab and form hole to receive drainage.
- 2 Connect Bezel to Pipe Adaptor, locate assembly in hole, and temporarily support so that height of Grate above slab is equal to the minimum screed thickness.
- 3 Connect Pipe Adaptor to pipework with Harmer SML Coupling.
- 4 Fill space between Pipe Adaptor and concrete with expanded fire retardant foam.



- 5 Connect the Funnel, Cup and Funnel Seal to form the Trap Assembly. Push the assembly into the Pipe Adaptor. Connect Grate to Bezel.
- 6 Lay screed to falls.
- 7 Lay the flexible sheet flooring and screw the Clamp Collar into position to secure the sheet flooring firmly against the Bezel.

HARMER

DRAINAGE SYSTEMS

Rainwater

Drainage

Waterproofing

Façades

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