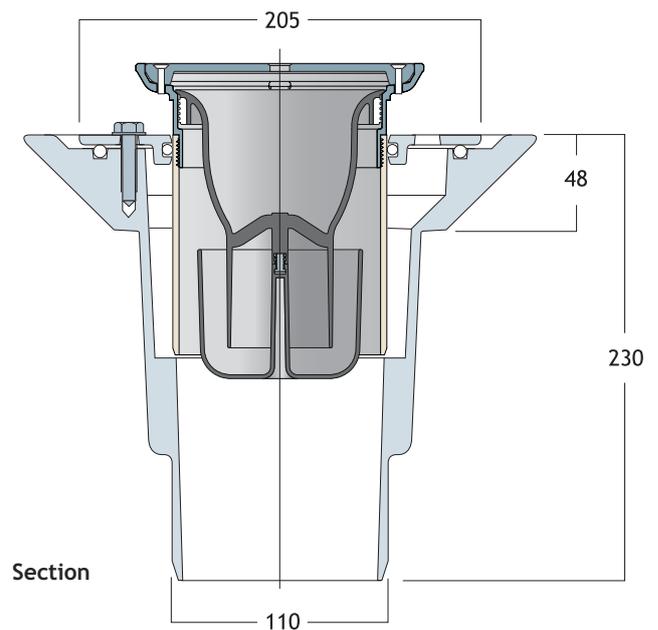
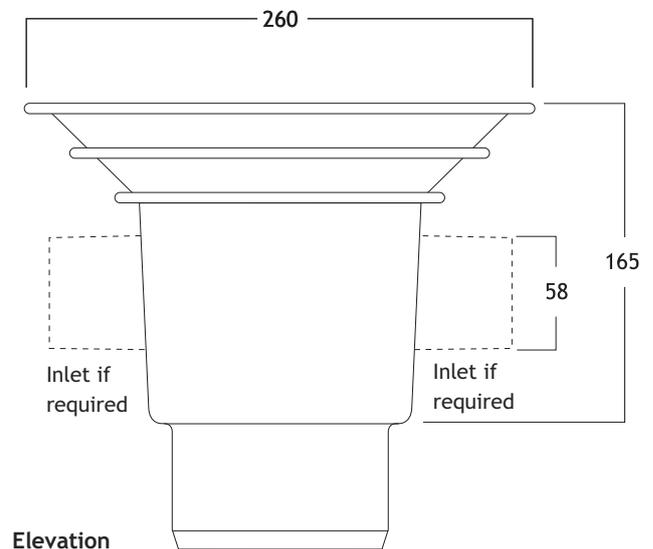


Aluminium Floor Outlets - Trapped Outlets

Vertical Trapped Outlet Components



Drain Body Dimensions



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

Body Assembly

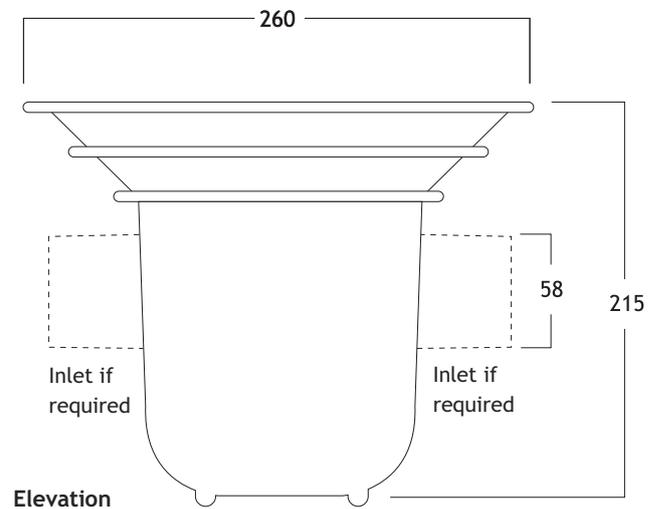
- Consists of a clamp ring and drain body, both in white polyester coated aluminium, neoprene 'O' ring seal, and an integral PVC funnel trap

Aluminium Floor Outlets - Trapped Outlets

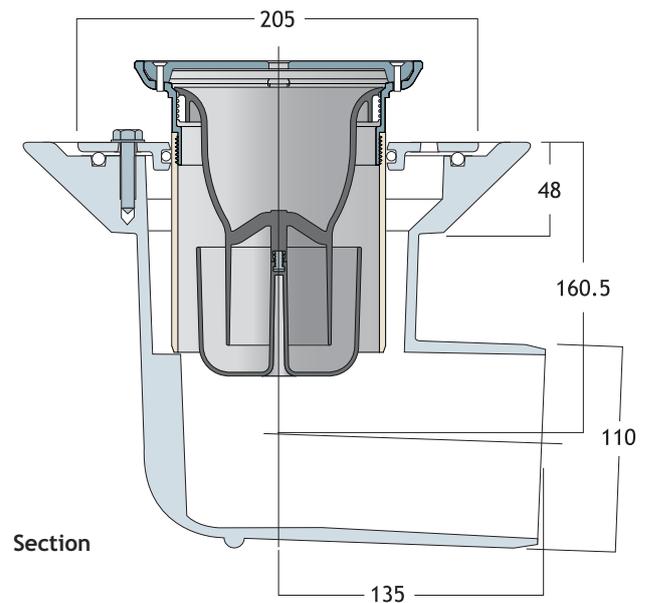
Horizontal Trapped Outlet Components



Drain Body Dimensions



Elevation



Section

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

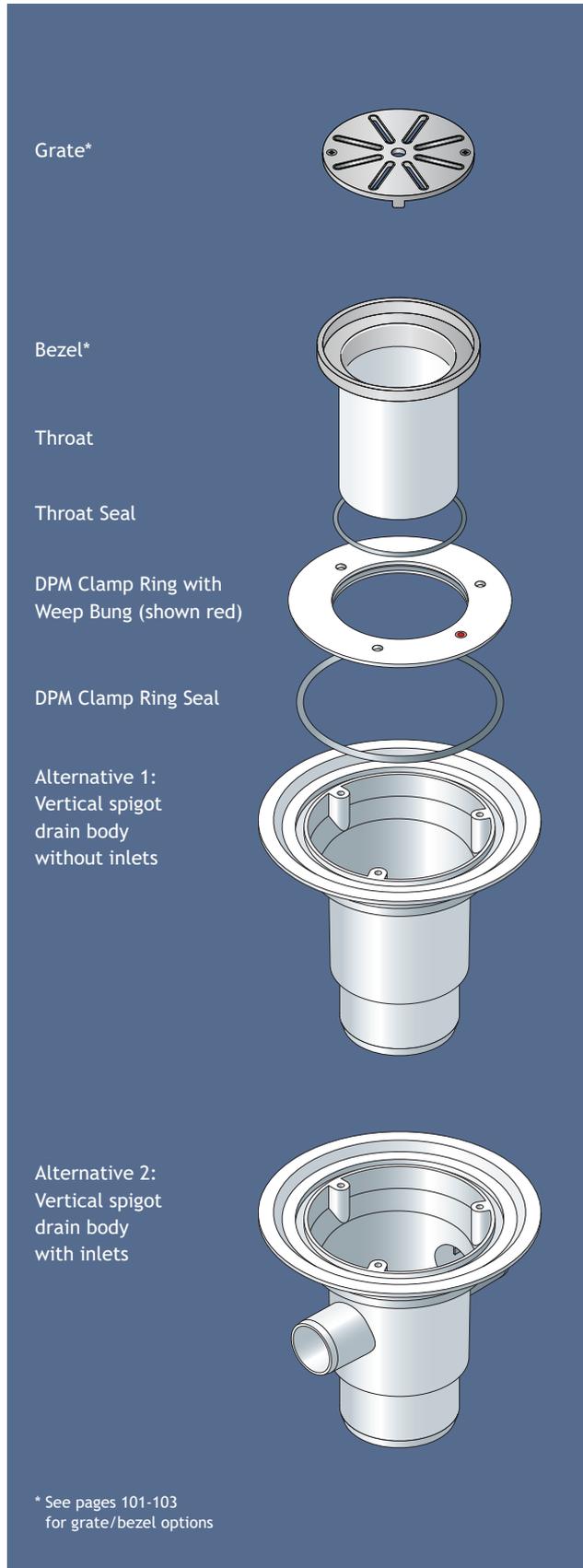
- Consists of stainless steel or nickel bronze grate and bezel, attached to an adjustable smooth sliding throat in white PVC

Body Assembly

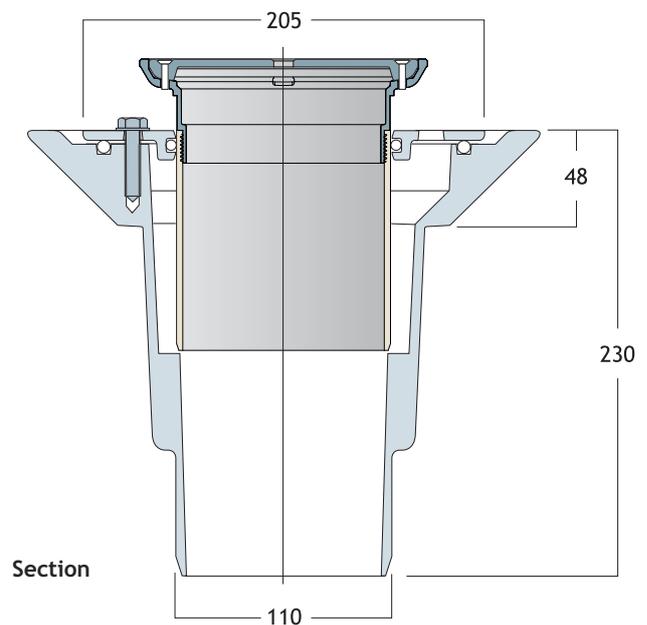
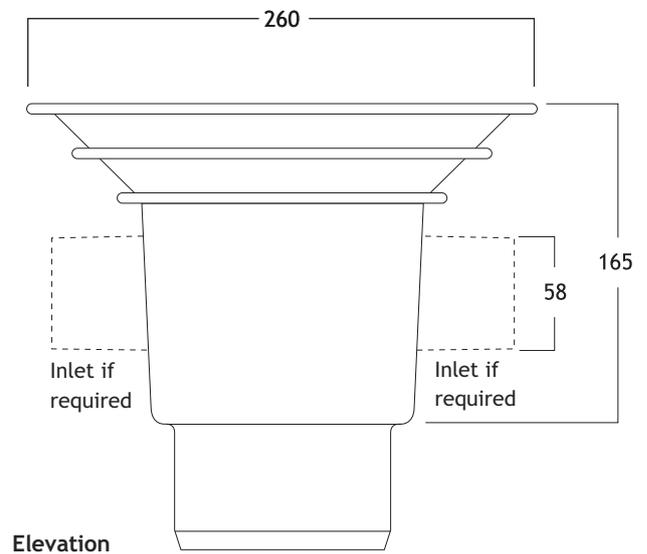
- Consists of a clamp ring and drain body, both in white polyester coated aluminium, neoprene 'O' ring seal, and an integral PVC funnel trap

Aluminium Floor Outlets - Untrapped Outlets

Vertical Untrapped Outlet Components



Drain Body Dimensions



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

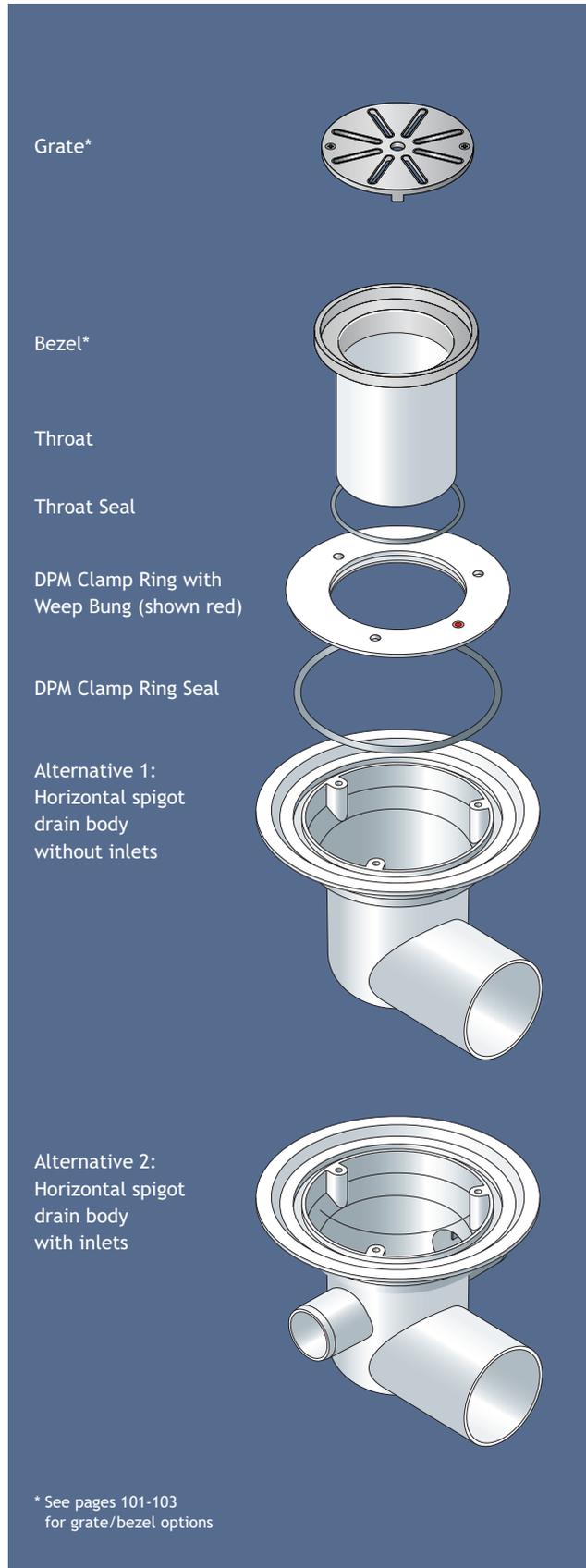
- Consists of stainless steel or nickel bronze grate and bezel, attached to an adjustable smooth sliding throat in white PVC

Body Assembly

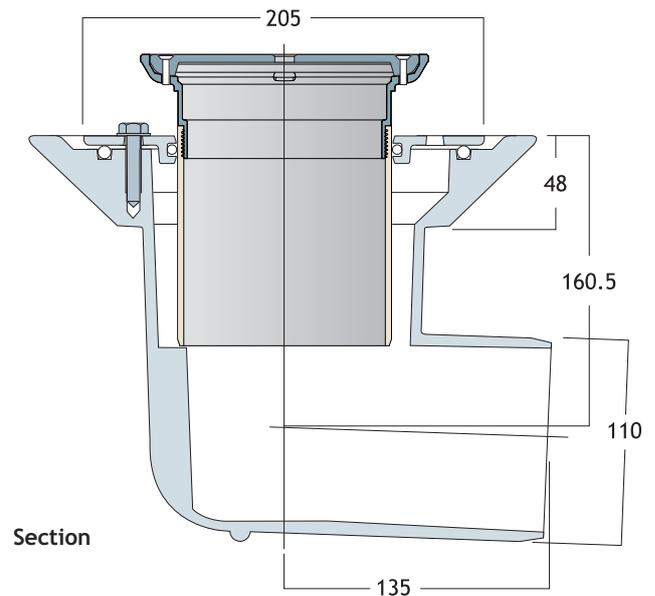
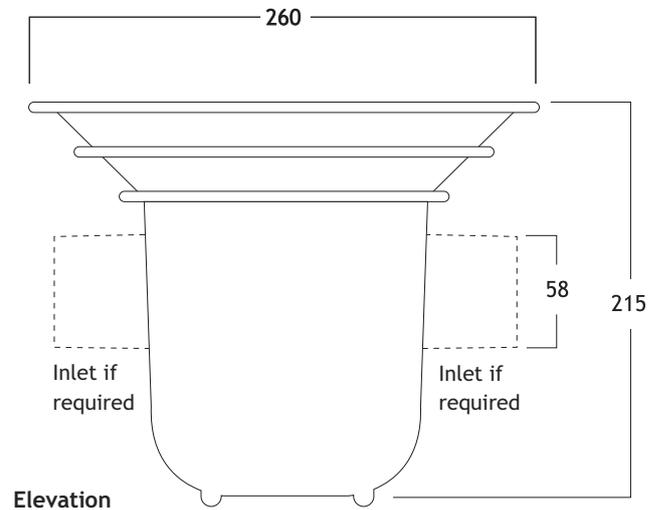
- Consists of a clamp ring and drain body, both in white polyester coated aluminium, and a neoprene 'O' ring seal

Aluminium Floor Outlets - Untrapped Outlets

Horizontal Untrapped Outlet Components



Drain Body Dimensions



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

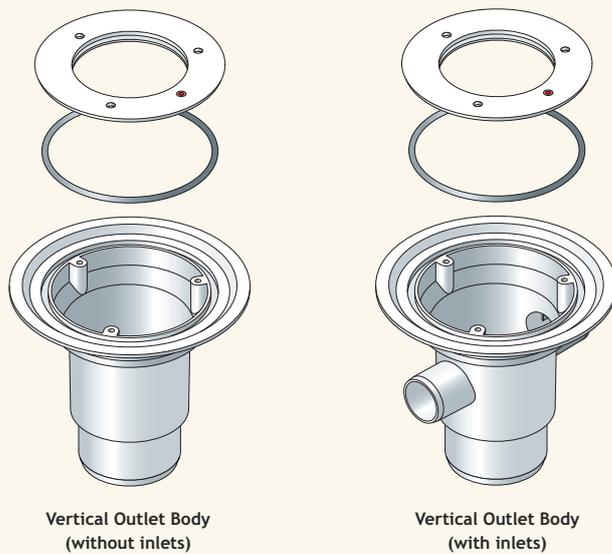
Body Assembly

- Consists of a clamp ring and drain body, both in white polyester coated aluminium, and a neoprene 'O' ring seal

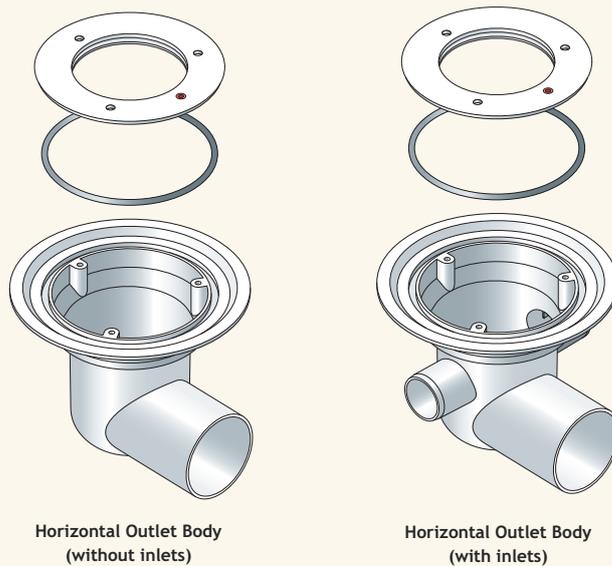
Aluminium Floor Outlets - Drain Body, Grate/Bezel Product Tables

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

Outlet Body Components

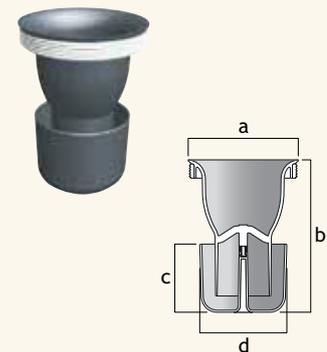


For body dimensions see pages
98 to 101



Outlet Body Type	Product Code
Vertical Outlet Body (without inlets)	BVS100
Vertical Outlet Body (with inlets)	BVS100A
Horizontal Outlet Body (without inlets)	BHS100
Horizontal Outlet Body (with inlets)	BHS100A

Trap



Traps can be ordered separately
by quoting the product code

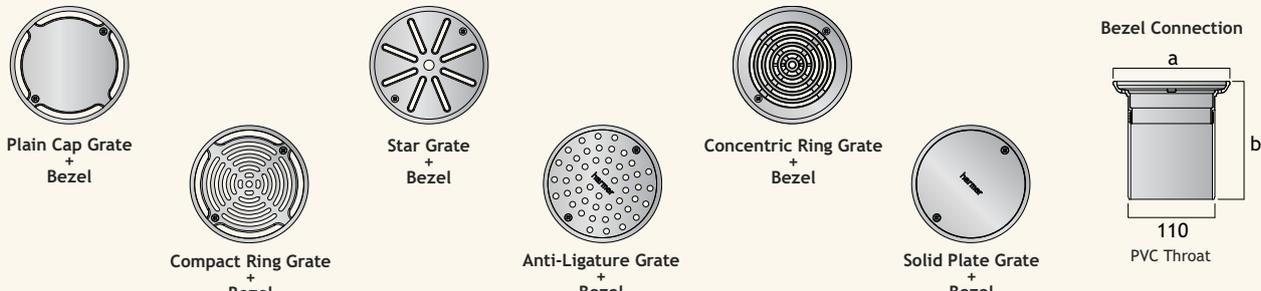
a (mm)	b (mm)	c (mm)	d (mm)	Product Code
107.5	150	67	85	HF/FT

All four outlet body types, trapped or untrapped, will accept any of the grate and bezel options shown in the following tables on pages 101 to 103.

Aluminium Floor Outlets - Grate/Bezel Product Tables

Grate Options with 150mm Ø Circular Bezels

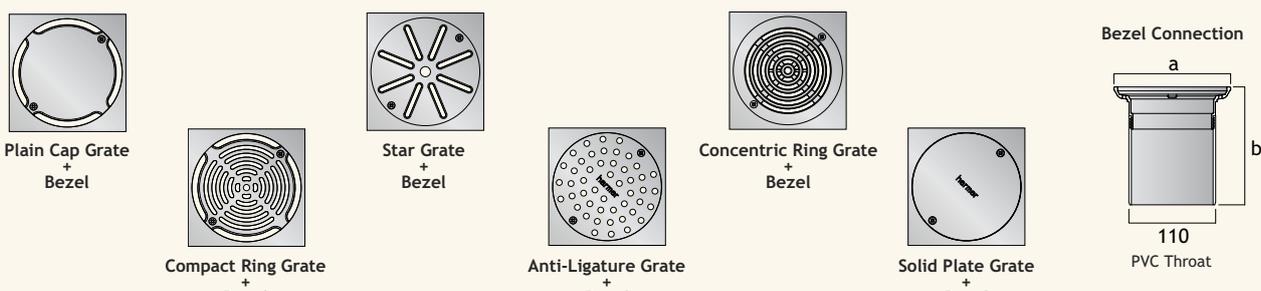
To Specify Untrapped Drains: Remove the suffix /T



Grate Options	Grates and Bezels Material/Finish	Outlet Size (mm)	a (mm)	b (mm)	Load Class	Weight (kg)	Flow Rate (l/s)	Product Code (Trapped)
Plain Cap	Satin Stainless Steel	110	148	151	L15	1.89	2.21	CPA15/SS/B/T
	Nickel Bronze	110	148	151	L15	1.87	2.21	CPA15/NB/B/T
Star	Satin Stainless Steel	110	148	151	L15	2.10	1.15	CSA15/SS/B/T
	Nickel Bronze	110	148	151	L15	1.99	1.15	CSA15/NB/B/T
Concentric Ring	Satin Stainless Steel	110	148	151	L15	1.92	2.42	CCA15/SS/B/T
	Nickel Bronze	110	148	151	L15	1.89	2.42	CCA15/NB/B/T
Compact Ring	Satin Stainless Steel	110	148	151	L15	1.78	2.52	CRA15/SS/B/T
	Nickel Bronze	110	148	151	L15	1.90	2.52	CRA15/NB/B/T
Anti-Ligature	Satin Stainless Steel	110	148	151	L15	1.88	1.80	CAA15/SS/B/T
	Nickel Bronze	110	148	151	L15	2.20	1.80	CAA15/NB/B/T
Solid Plate	Satin Stainless Steel	110	148	151	L15	2.03	–	CBA15/SS/B/T
	Satin Stainless Steel (with Plug Seal*)	110	148	151	L15	2.03	–	RA/CBA15/SS/B
	Nickel Bronze	110	148	151	L15	2.30	–	CBA15/NB/B/T
* (no trap)	Nickel Bronze (with Plug Seal*)	110	148	151	L15	2.30	–	RA/CBA15/NB/B

Grate Options with 150 x 150mm Square Bezels

To Specify Untrapped Drains: Remove the suffix /T

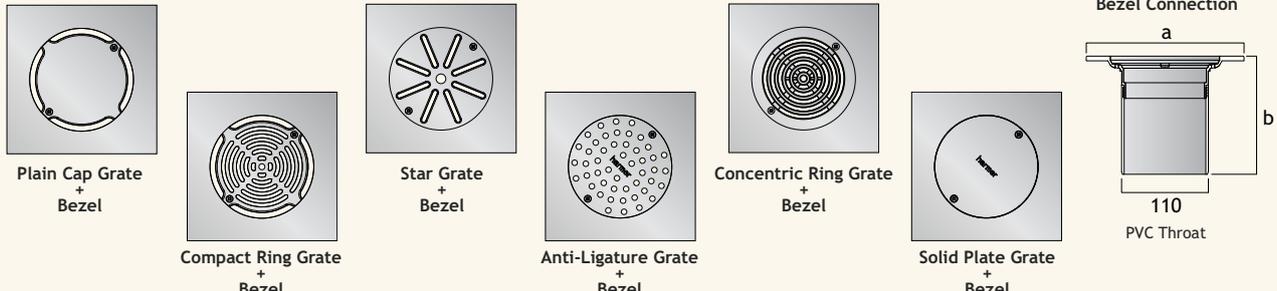


Grate Options	Grates and Bezels Material/Finish	Outlet Size (mm)	a (mm)	b (mm)	Load Class	Weight (kg)	Flow Rate (l/s)	Product Code (Trapped)
Plain Cap	Satin Stainless Steel	110	150	151	L15	2.01	2.21	TPA15/SS/B/T
	Nickel Bronze	110	150	151	L15	1.92	2.21	TPA15/NB/B/T
Star	Satin Stainless Steel	110	150	151	L15	2.22	1.15	TSA15/SS/B/T
	Nickel Bronze	110	150	151	L15	2.04	1.15	TSA15/NB/B/T
Concentric Ring	Satin Stainless Steel	110	150	151	L15	2.04	2.42	TCA15/SS/B/T
	Nickel Bronze	110	150	151	L15	1.94	2.42	TCA15/NB/B/T
Compact Ring	Satin Stainless Steel	110	150	151	L15	1.88	2.52	TRA15/SS/B/T
	Nickel Bronze	110	150	151	L15	1.93	2.52	TRA15/NB/B/T
Anti-Ligature	Satin Stainless Steel	110	150	151	L15	1.90	1.80	TAA15/SS/B/T
	Nickel Bronze	110	150	151	L15	2.25	1.80	TAA15/NB/B/T
Solid Plate	Satin Stainless Steel	110	150	151	L15	2.15	–	TBA15/SS/B/T
	Satin Stainless Steel (with Plug Seal*)	110	150	151	L15	2.15	–	RA/TBA15/SS/B
	Nickel Bronze	110	150	151	L15	2.35	–	TBA15/NB/B/T
* (no trap)	Nickel Bronze (with Plug Seal*)	110	150	151	L15	2.35	–	RA/TBA15/NB/B

Aluminium Floor Outlets - Grate/Bezel Product Tables

Grate Options with 200 x 200mm Square Bezels

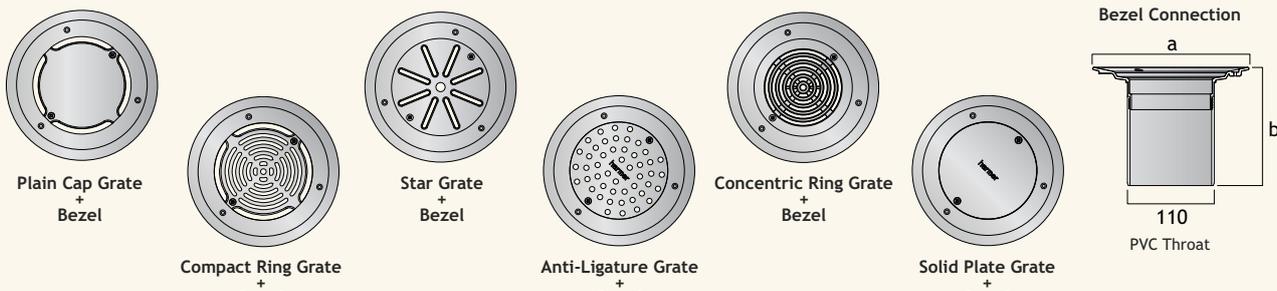
To Specify Untrapped Drains: Remove the suffix /T



Grate Options	Grates and Bezels Material/Finish	Outlet Size (mm)	a (mm)	b (mm)	Load Class	Weight (kg)	Flow Rate (l/s)	Product Code (Trapped)
Plain Cap	Satin Stainless Steel	110	200	151	L15	2.51	2.21	TPA20/SS/B/T
	Nickel Bronze	110	200	151	L15	2.97	2.21	TPA20/NB/B/T
Star	Satin Stainless Steel	110	200	151	L15	2.72	1.15	TSA20/SS/B/T
	Nickel Bronze	110	200	151	L15	3.09	1.15	TSA20/NB/B/T
Concentric Ring	Satin Stainless Steel	110	200	151	L15	2.54	2.42	TCA20/SS/B/T
	Nickel Bronze	110	200	151	L15	2.99	2.42	TCA20/NB/B/T
Compact Ring	Satin Stainless Steel	110	200	151	L15	2.40	2.52	TRA20/SS/B/T
	Nickel Bronze	110	200	151	L15	3.00	2.52	TRA20/NB/B/T
Anti-Ligature	Satin Stainless Steel	110	200	151	L15	2.50	1.80	TAA20/SS/B/T
	Nickel Bronze	110	200	151	L15	3.30	1.80	TAA20/NB/B/T
Solid Plate	Satin Stainless Steel	110	200	151	L15	2.65	–	TBA20/SS/B/T
	Satin Stainless Steel (with Plug Seal*)	110	200	151	L15	2.65	–	RA/TBA20/SS/B
	Nickel Bronze	110	200	151	L15	3.40	–	TBA20/NB/B/T
* (no trap)	Nickel Bronze (with Plug Seal*)	110	200	151	L15	3.40	–	RA/TBA20/NB/B

Grate Options with 200mm Ø Circular Bezels for Vinyl

To Specify Untrapped Drains: Remove the suffix /T

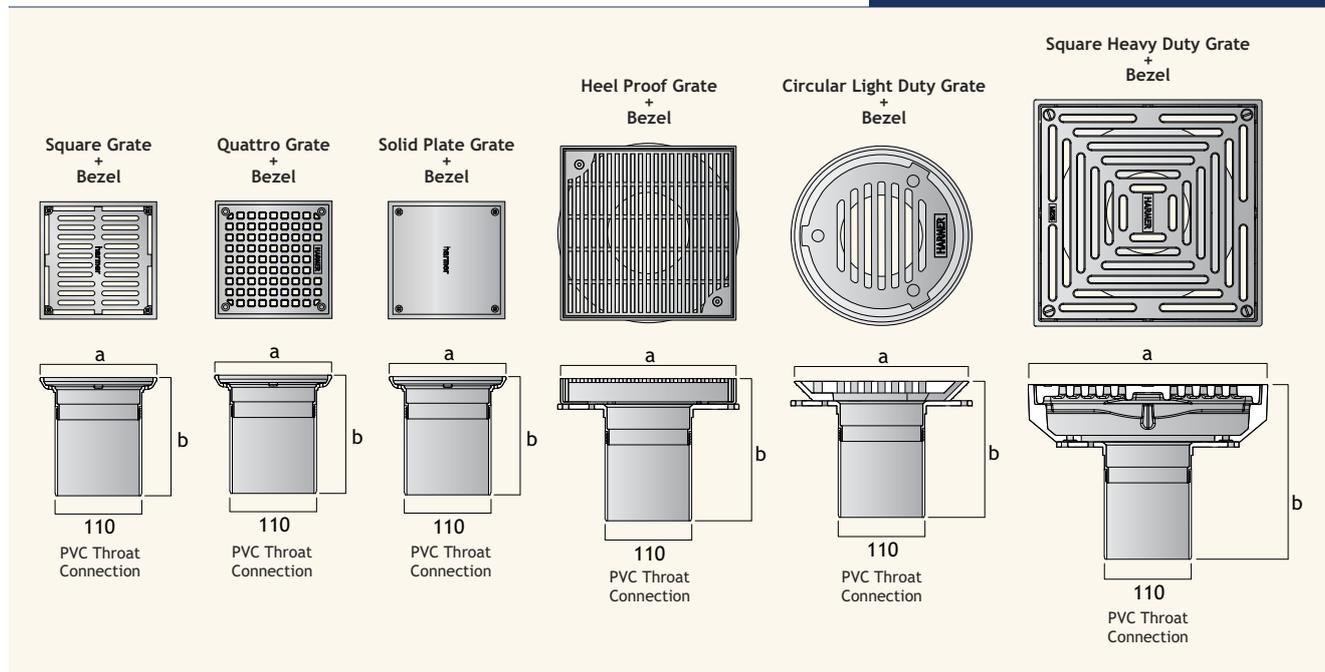


Grate Options	Grates and Bezels Material/Finish	Outlet Size (mm)	a (mm)	b (mm)	Load Class	Weight (kg)	Flow Rate (l/s)	Product Code (Trapped)
Plain Cap	Satin Stainless Steel	110	200	151	L15	2.10	2.21	VPA20/SS/B/T
	Nickel Bronze	110	200	151	L15	2.32	2.21	VPA20/NB/B/T
Star	Satin Stainless Steel	110	200	151	L15	2.31	1.15	VSA20/SS/B/T
	Nickel Bronze	110	200	151	L15	2.44	1.15	VSA20/NB/B/T
Concentric Ring	Satin Stainless Steel	110	200	151	L15	2.13	2.42	VCA20/SS/B/T
	Nickel Bronze	110	200	151	L15	2.34	2.42	VCA20/NB/B/T
Compact Ring	Satin Stainless Steel	110	200	151	L15	2.49	2.52	VRA20/SS/B/T
	Nickel Bronze	110	200	151	L15	3.15	2.52	VRA20/NB/B/T
Anti-Ligature	Satin Stainless Steel	110	200	151	L15	2.59	1.80	VAA20/SS/B/T
	Nickel Bronze	110	200	151	L15	3.45	1.80	VAA20/NB/B/T
Solid Plate	Satin Stainless Steel	110	200	151	L15	2.74	–	VBA20/SS/B/T
	Satin Stainless Steel (with Plug Seal*)	110	200	151	L15	2.74	–	RA/VBA20/SS/B
	Nickel Bronze	110	200	151	L15	3.55	–	VBA20/NB/B/T
* (no trap)	Nickel Bronze (with Plug Seal*)	110	200	151	L15	3.55	–	RA/VBA20/NB/B

Aluminium Floor Outlets - Grate/Bezel Product Tables

Miscellaneous Grates and Bezels

To Specify Untrapped Drains: Remove the suffix /T



Grate Options	Grates and Bezels Material/Finish	Outlet Size (mm)	a (mm)	b (mm)	Load Class	Weight (kg)	Flow Rate (l/s)	Product Code (Trapped)
Square	Satin Stainless Steel	110	200	151	L15	1.95	2.82	SGA15/SS/B/T
	Nickel Bronze	110	200	151	L15	2.20	2.82	SGA15/NB/B/T
Quattro	Satin Stainless Steel	110	200	151	L15	2.11	2.19	SHA15/SS/B/T
	Nickel Bronze	110	200	151	L15	2.30	2.19	SHA15/NB/B/T
Solid Plate	Satin Stainless Steel	110	200	151	L15	2.28	–	SBA15/SS/B/T
	Satin Stainless Steel (with Plug Seal*)	110	200	151	L15	2.28	–	RA/SBA15/SS/B
	Nickel Bronze	110	200	151	L15	2.50	–	SBA15/NB/B/T
	Nickel Bronze (with Plug Seal*)	110	200	151	L15	2.50	–	RA/SBA15/NB/B
* (no trap)								
Heel Proof	Satin Stainless Steel	110	225	182	M125	6.00	3.50	SA225/SS/B/T
Circular Light Duty	Sheradised Ductile Iron	110	222	174	L15	3.60	3.50	CA220/DI/B/T
Square Heavy Duty	Ductile Iron	110	323	227	M125	12.80	6.9	SA300/DI/B/T

Aluminium Floor Outlets - Connections

Connection to Pipework

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

Outlet Pipe

- 100mm – connection to PVC 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

Side Inlet Pipes

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



1. Fix adjustable, expandable coupling as provided and tighten screws.



2. Insert plain end of 50mm waste pipe into coupling. Tighten screws on metal strap to secure.

Pipe Adaptors for Suspended Floor Drainage

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

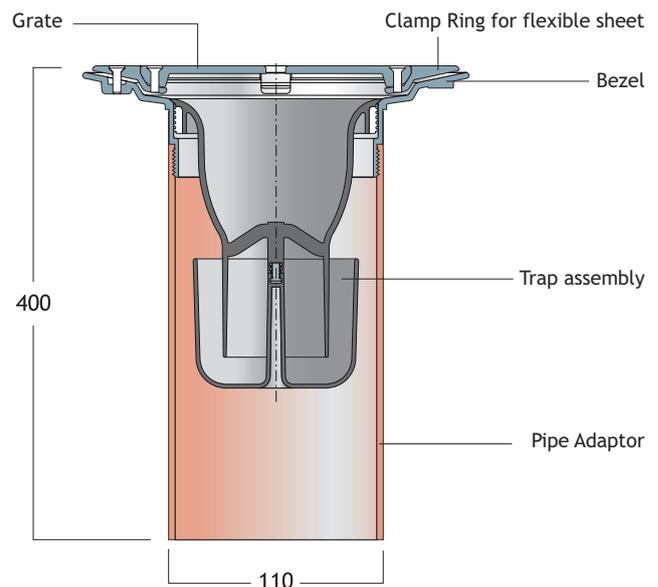
Waterproofing is achieved in conjunction with a vinyl floor covering bonded and clamped into the appropriate Harmer Grate assembly (VRA20).

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

Harmer Pipe Adaptors are 400mm length but can be made longer if required. See page 111 for Pipe Adaptor application detail.

Refer to pages 101, 102 and 103 for choices of either stainless steel or nickel bronze Grate finishes.

Section Through Trapped Grate/Pipe Adaptor Assembly



Component Range: Pipe Adaptors

Description	Product Code
100mm Cast Iron	ADP100/SML
100mm HDPE	ADP100/HDPE
100mm PVC	ADP100/PVCU

Aluminium Floor Outlets - Grate Adjustment

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 and alignment allowing for underfloor insulation, screed and floor finish.
- Prime the Trap with clean water.
- Cover Grate surface to protect from following trades.

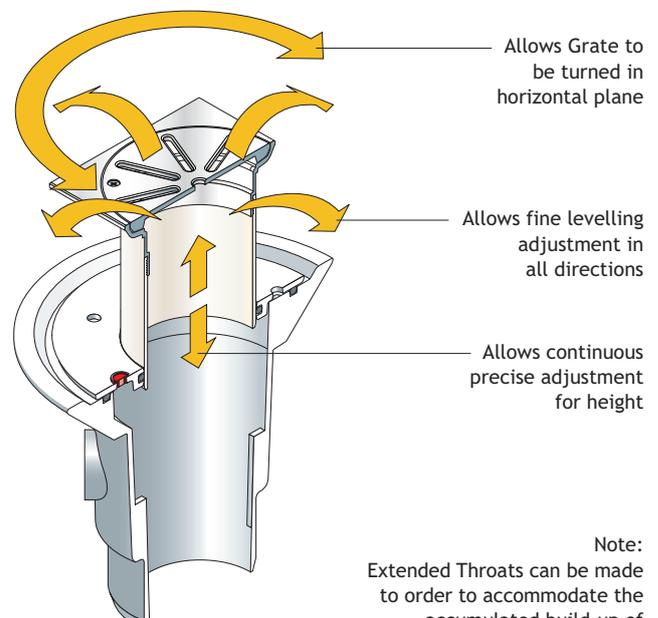


Fine Adjustment

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 build-up of constructional elements such as insulation, reinforced screed and floor finishes.

