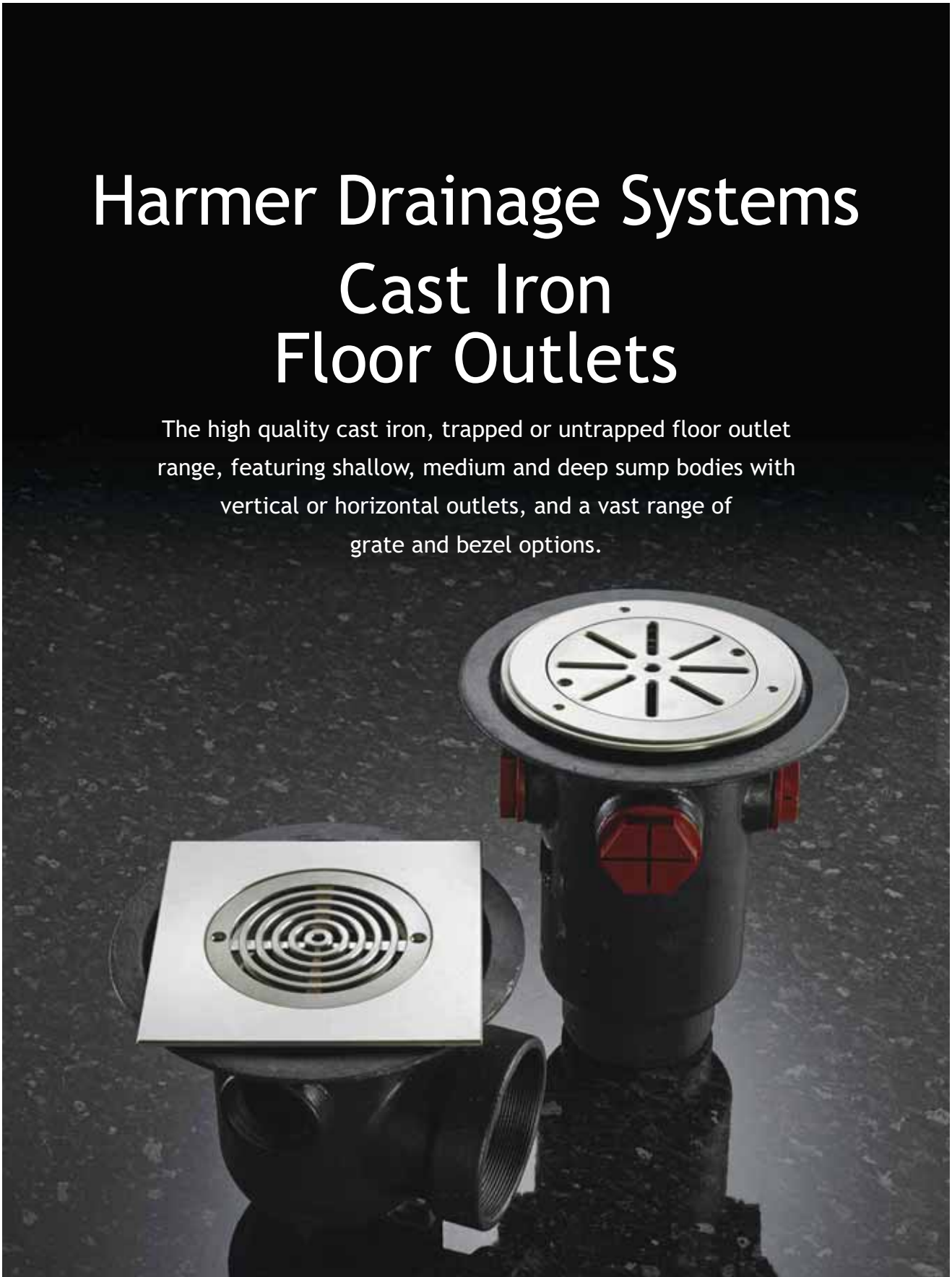


Harmer Drainage Systems Cast Iron Floor Outlets

The high quality cast iron, trapped or untrapped floor outlet range, featuring shallow, medium and deep sump bodies with vertical or horizontal outlets, and a vast range of grate and bezel options.



Cast Iron Floor Outlets - Benefits

Harmer Cast Iron Floor Drains offer an all new range of drain bodies from shallow sump to deep sump with a wide selection of grate & bezel designs with three connection types, available in Satin Stainless finish or Nickel Bronze. Also complemented with a range of cast Iron floor drain assemblies which are ideally suited for composite or asphaltic floor applications.

Compliances

- Grate options available for load classes ratings to BS EN 1253 - K3 (3 kN), L15 (15 kN) and M125 (125 kN)
- Harmer Cast Iron gullies are coated internally and externally with a dark grey 2-part epoxy coating. This is in compliance to Class 1 fire classification BS 476: Part 7:1997, Surface spread of flame. Smoke and Toxicity test to Part 2, Annex 1 & Annex 2 of fire test procedure code, IMO Resolution MSC61(67)

Flow Performance

- High flow performance
- High sump volume

Robust and Secure

- Excellent corrosion resistance and durability
- High quality cast iron

A Choice of Body and Grates

- Drain bodies available: shallow sump, medium sump, deep sump, P-trapped, S-trapped and a clean-out drain body
- A range of floor drain assemblies, especially suited for plant rooms with a composite or asphaltic floor finish
- Outlet size available from 50mm up to 150mm
- Grates available for tiled, vinyl, resin, composite & asphaltic floor applications
- The Floor drain bodies are available with a choice of 30 grate options in either a satin stainless or nickel bronze finish
- Three types of bezel connections - 4" NPSM thread, 110mm direct fix and 110 PVC throat

Low Maintenance

- Easy to clean and maintain with easy access to the trap

Easy and Quick to Install

- Innovatively designed

Value for Money

- Cast Iron is very durable and resistant in industrial applications so its life cycle cost is excellent

Sustainable

- Cast Iron is 100% recyclable



Cast Iron Floor Outlets - Product Range Summary

Harmer Cast Iron Floor Drains offer an all new range of drain bodies from shallow sump to deep sump and Cast Iron floor assemblies, with a wide selection of grate & bezel designs with three connection types, available in Satin Stainless finish or Nickel Bronze.

Available in a wide range of 29 drain bodies to suit any application. High performance trapped or untrapped solutions which are interchangeable with all of the 30 different grate options and bezel types.

Drain Bodies and Trap



Cast Iron Floor Outlets - Product Range Summary

Grates and Bezels



Pipe Adaptors



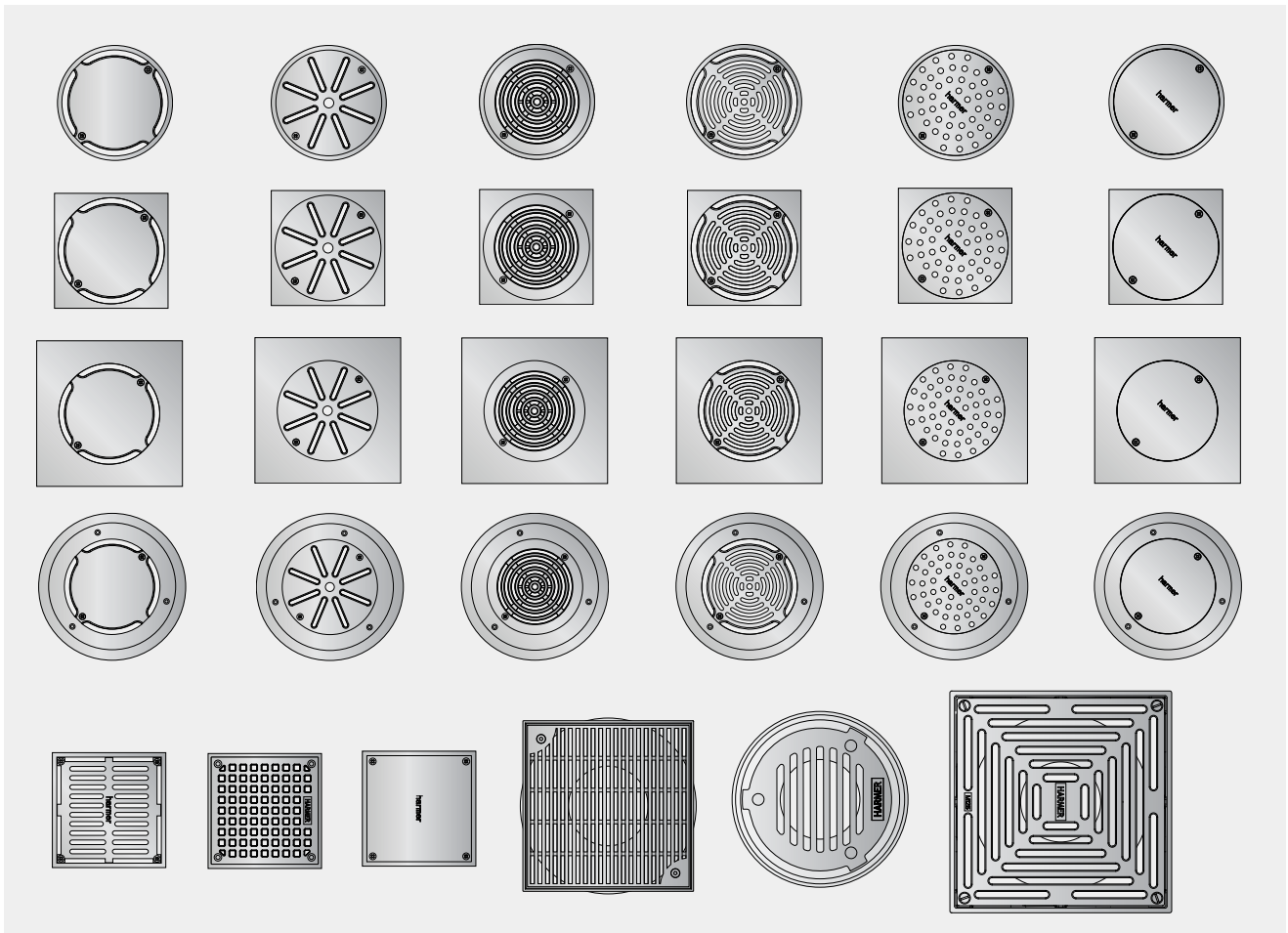
Cast Iron Assembly



HDPE Assembly



PVC Assembly



Cast Iron Floor Outlets - Drain Body Product Tables

Harmer Cast Iron Shallow Sump Floor Drain bodies are available with either a BSP threaded or spigot outlet for direct connection to pipework. The Medium sump drain bodies offer a wide range of body types including with side inlets. They are available in a BSP threaded or spigot outlet with either vertical or horizontal connection.

Shallow Sump Vertical Drain Bodies

Outlet Size (mm)	Connection	a (mm)	b (inches/mm)	c (mm)	d (mm)	e (mm)	f (mm)	g (mm)	Weight (kg)	Flow Rate (l/s)*	Product Code
50	BSP	95	2	256	220	51.3	36	12	7.0	2.9	CSVT50
75	BSP	95	3	256	220	51.3	36	12	6.2	2.9	CSVT75
100	BSP	79	4	256	220	51.3	36	12	4.9	2.9	CSVT100
75	Spigot	205	83	256	220	51.3	36	12	6.0	2.9	CSVS75
100	Spigot	93	110	256	220	51.3	36	12	4.7	2.9	CSVS100

* The flow rates relate to maximum sump capacity with use of compulsory clamp plate and 20mm head of water

Medium Sump Vertical Drain Bodies

Outlet Size (mm)	Connection	a (mm)	b (inches)	c (mm)	d (mm)	e (mm)	f (mm)	g (mm)	Weight (kg)	Flow Rate (l/s)*	Product Code
50	BSP	161	2	256	220	117.4	36	12	10.0	2.9	CM1VT50
75	BSP	161	3	256	220	117.4	36	12	9.2	2.9	CM1VT75
100	BSP	145	4	256	220	117.4	36	12	7.9	2.9	CM1VT100
50 (+ side inlets)	BSP	161	2	256	220	117.4	36	12	10.0	2.9	CM1VT50/A
75 (+ side inlets)	BSP	161	3	256	220	117.4	36	12	9.2	2.9	CM1VT75/A
100 (+ side inlets)	BSP	145	4	256	220	117.4	36	12	7.9	2.9	CM1VT100/A

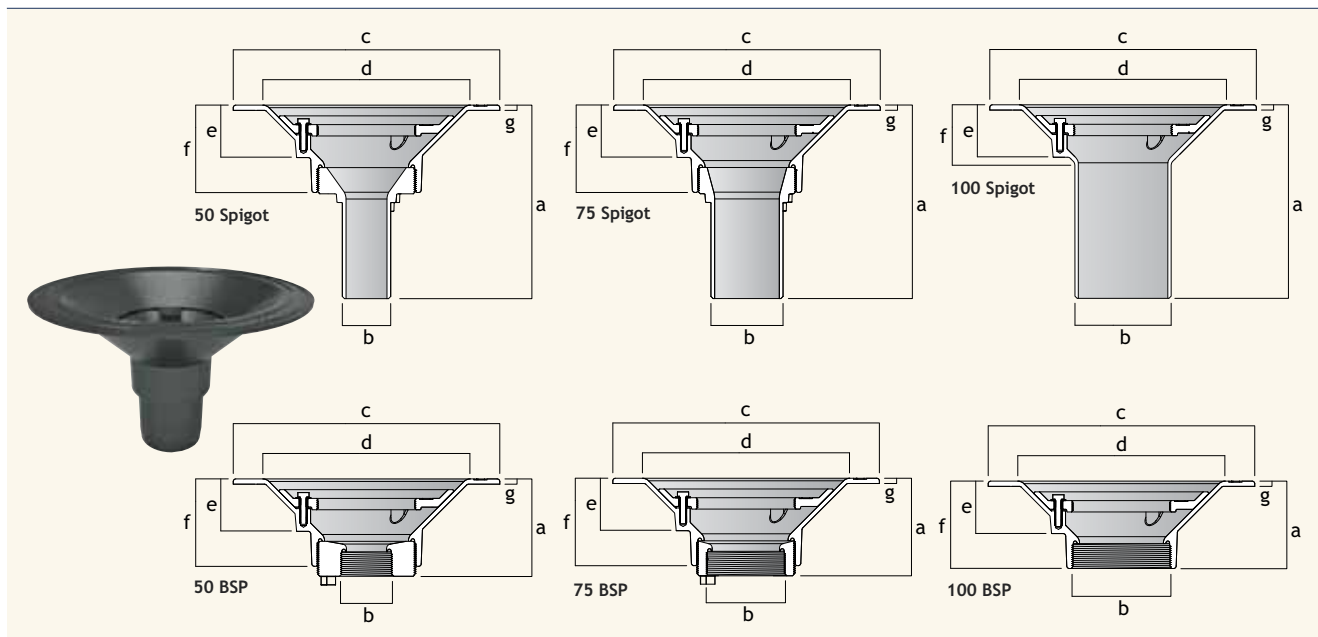
* The flow rates relate to maximum sump capacity with use of compulsory clamp plate and 20mm head of water

Cast Iron Floor Outlets - Drain Body Product Tables

Harmer Cast Iron Shallow Sump and Medium Sump Floor Drain Bodies are compatible with all grate & bezel options.

Each drain body comes with a clamping collar and a gasket seal.

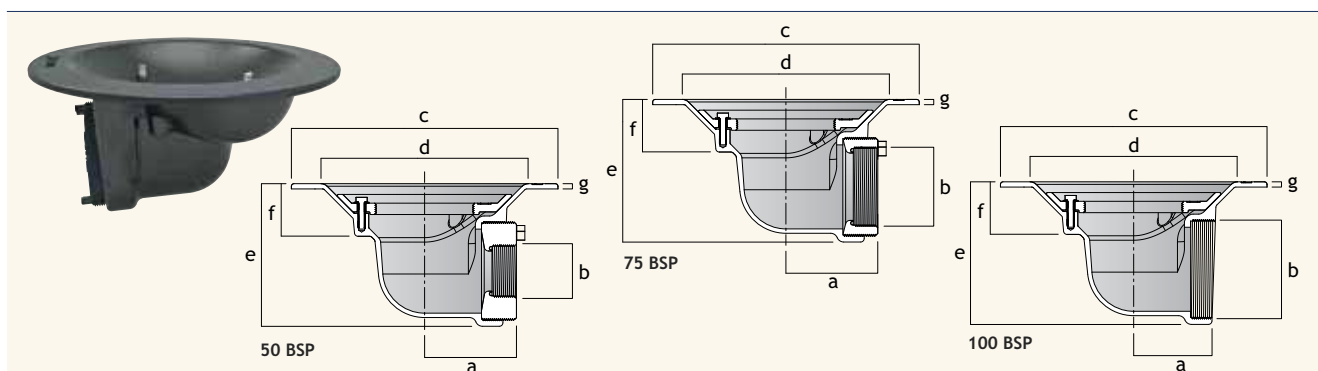
Medium Sump Vertical Drain Bodies



Outlet Size (mm)	Connection	a (mm)	b (mm/inches)	c (mm)	d (mm)	e (mm)	f (mm)	g (mm)	Weight (kg)	Flow Rate (l/s)*	Product Code
50	Spigot	220	60	305	235	60	100	6	7.2	1.7	CM2V50
75	Spigot	220	83	305	235	60	100	6	7.5	3.6	CM2V75
100	Spigot	190	110	305	235	60	70	6	6.7	3.6	CM2V100
50	BSP	112	2	305	235	60	100	6	7.0	1.7	CM2VT50
75	BSP	112	3	305	235	60	100	6	6.8	3.6	CM2VT75
100	BSP	100	4	305	235	60	100	6	5.5	3.6	CM2VT100

* The flow rates relate to maximum sump capacity with use of compulsory clamp plate and 20mm head of water

Medium Sump Horizontal Drain Bodies



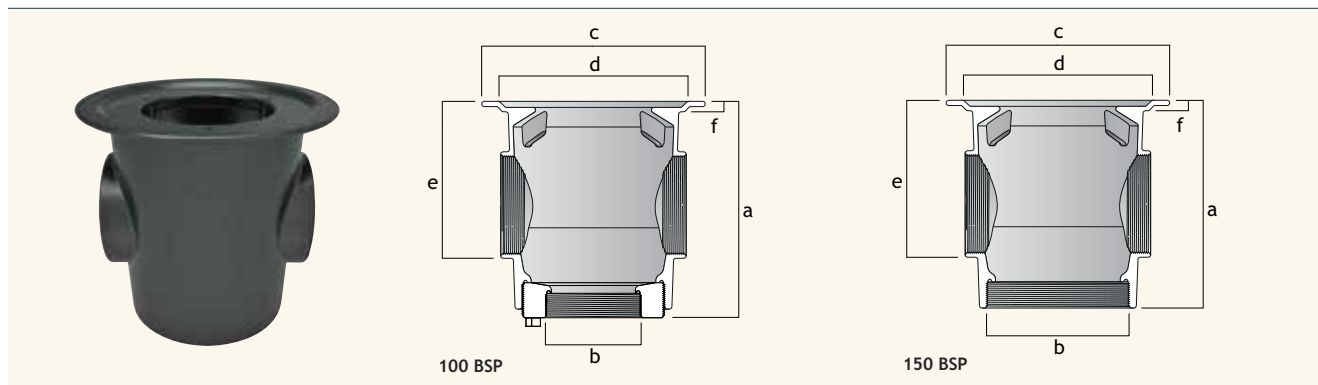
Outlet Size (mm)	Connection	a (mm)	b (inches)	c (mm)	d (mm)	e (mm)	f (mm)	g (mm)	Weight (kg)	Flow Rate (l/s)	Product Code
50	BSP	105	2	305	235	165	60	6	9.0	1.7	CM2HT50
75	BSP	105	3	305	235	165	60	6	8.2	3.6	CM2HT75
100	BSP	90	4	305	235	165	60	6	7.0	3.6	CM2HT100

* The flow rates relate to maximum sump capacity with use of compulsory clamp plate and 20mm head of water

Cast Iron Floor Outlets - Drain Body Product Tables

Harmer Cast Iron Deep sump with either a 4" or 6" BSP vertical outlet. The P-Trapped horizontal & S-Trapped vertical outlets have an integral trap and have options of side inlets if required. The clean-out drain body is trapped and can be combined with any grate option for specific applications such as a rodding access.

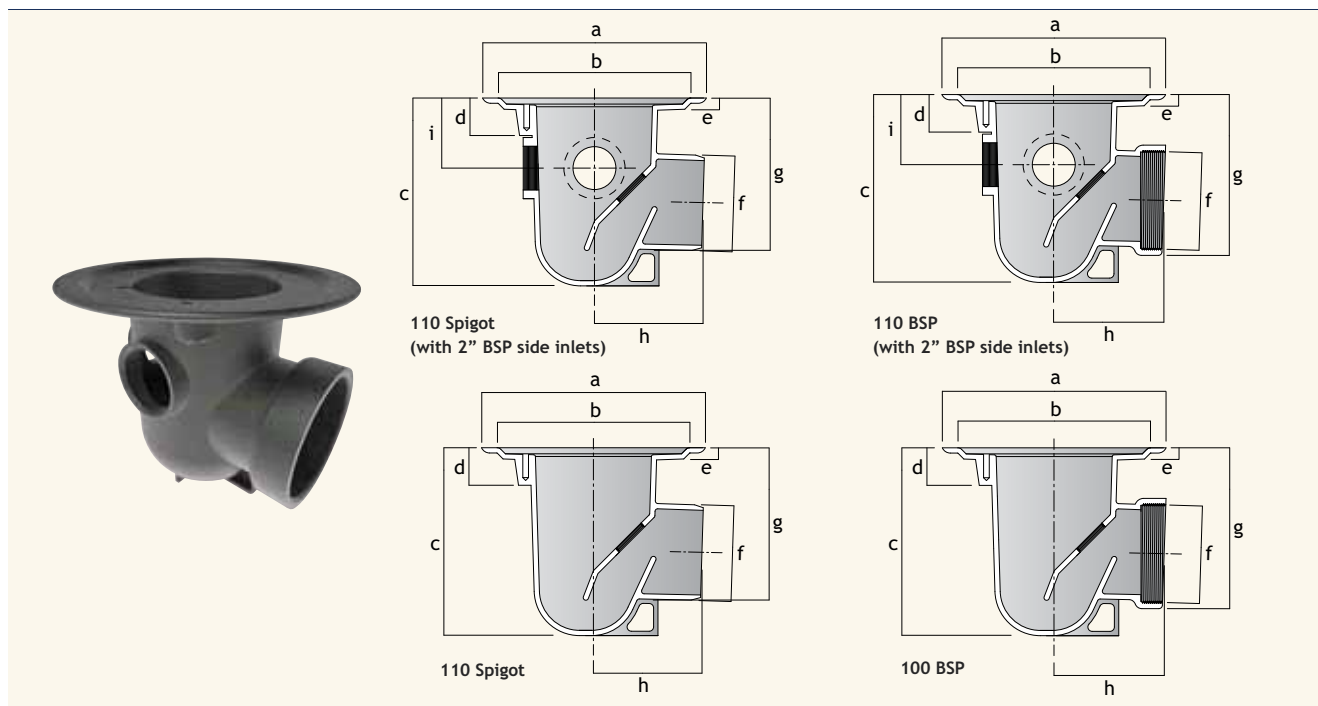
Deep Sump Vertical Drain Bodies



Outlet Size (mm)	Connection	a (mm)	b (inches)	c (mm)	d (mm)	e (mm)	f (mm)	Weight (kg)	Flow Rate (l/s)*	Product Code
100	BSP	247	4	256	220	185	12	14.35	2.9	CDVT100
150	BSP	238	6	256	220	185	12	11.05	2.9	CDVT150

* The flow rates relate to maximum sump capacity with use of compulsory clamp plate and 20mm head of water

P-Trapped Horizontal Drain Bodies

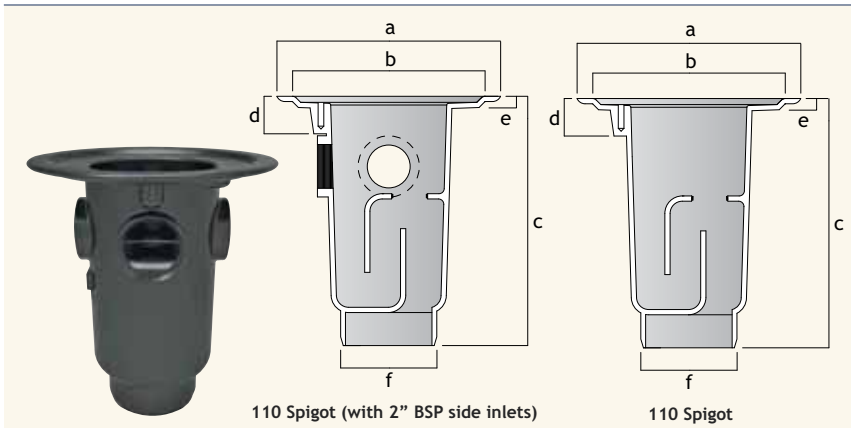


Outlet Size (mm)	Connection	a (mm)	b (mm)	c (mm)	d (mm)	e (mm)	f (mm/inches)	g (mm)	h (mm)	i (mm)	Weight (kg)	Flow Rate (l/s)*	Product Code
110 (+ side inlets)	Spigot	256	220	215	36	12	110	174	124	77	10.0	2.9	CTH100/A
110	Spigot	256	220	215	36	12	110	174	124	—	10.0	2.9	CTH100
100 (+ side inlets)	BSP	256	220	215	36	12	4	184	124	77	10.5	2.9	CTHT100/A
100	BSP	256	220	215	36	12	4	184	124	—	10.5	2.9	CTHT100

* The flow rates relate to maximum sump capacity with use of compulsory clamp plate and 20mm head of water

Cast Iron Floor Outlets - Drain Body Product Tables

S-Trapped Vertical Drain Bodies



Outlet Size (mm)	Connection	a (mm)	b (mm)	c (mm)	d (mm)	e (mm)	f (mm)	Weight (kg)	Flow Rate (L/s)*	Product Code
110 (+ side inlets)	Spigot	256	220	290	36	12	110	11.1	2.82	CTV100/A
110	Spigot	256	220	290	36	12	110	11.1	2.82	CTV100

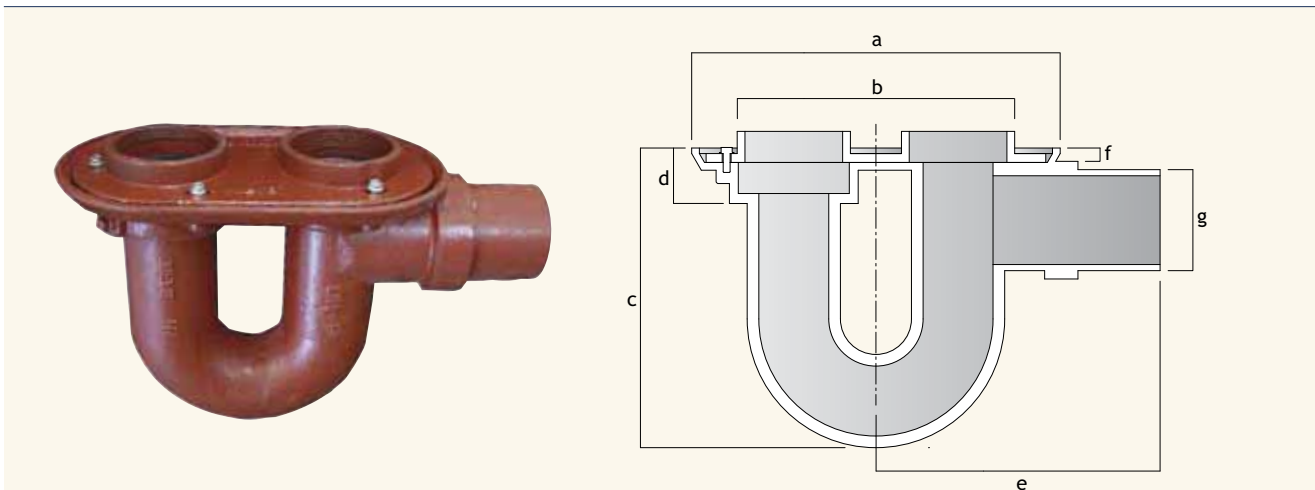
* The flow rates relate to maximum sump capacity with use of compulsory clamp plate and 20mm head of water

Pipe Adaptors



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

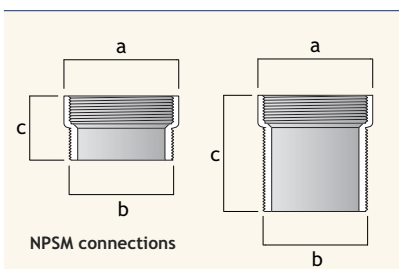
Clean-Out Drain Body



Outlet Size (mm)	Connection	a (mm)	b (mm)	c (mm)	d (mm)	e (mm)	f (mm)	g (mm)	Weight (kg)	Flow Rate (L/s)*	Product Code
110	Spigot	422	318	341	63.5	325	15	110	20.0	2.9	CCO100

* The flow rates relate to maximum sump capacity with use of compulsory clamp plate and 20mm head of water

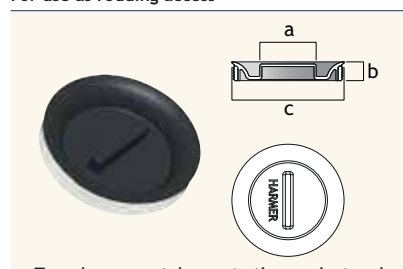
NPSM Extension Pieces



a (mm)	b (inches)	c (mm)	Weight (kg)	Product Code
121	4	70	1.32	CEXT103
121	4	120	2.37	CEXT153

Access Plug

For use as rodding access



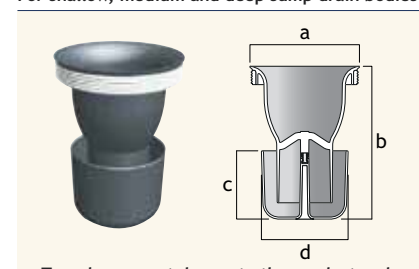
To order separately, quote the product code

a (mm)	b (mm)	c (mm)	Product Code
54	18	107.5	HF/AP

Included in assembly eg RA/SB15/SS/110

Trap

For shallow, medium and deep sump drain bodies



To order separately, quote the product code

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

Flow rate 1.8l/s

Cast Iron Floor Outlets - Grate/Bezel Product Tables

Harmer Cast Iron Floor Drain grates and bezels range offers a wide selection of designs to suit flow rate and load class requirements from K3 to M125. Available in either a satin stainless steel or nickel bronze finish, both are durable and provide a stylish long lasting finish.

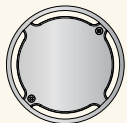
All the grates come with a choice of three bezel connections to suit any required pipework connection. Grates & bezel kits come trapped as standard, if a non-trapped version is required please remove the suffix /T.

150mm Circular Bezel

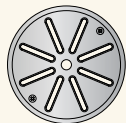
The 150mm circular grate & bezel kits come in a choice of 6 grate options to suit any application and environment such as vinyl, resin or screed floors.

Grate Options with 150mm Ø Circular Bezels

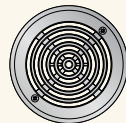
To Specify Untrapped Drains: Remove the suffix /T



Plain Cap Grate + Bezel

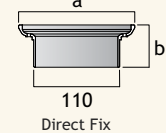
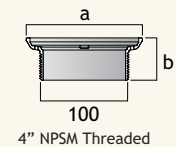
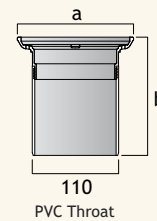


Star Grate + Bezel



Concentric Ring Grate + Bezel

Bezel Connection Options For Each Grate Type



Grate Options	Bezel Connection 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	110mm PVC Throat	Satin Stainless Steel	110	148	151	L15	1.89	2.21	CP15/SS/B/T
		Nickel Bronze	110	148	151	L15	1.87	2.21	CP15/NB/B/T
	4" NPSM Threaded	Satin Stainless Steel	100	148	54	L15	1.89	2.21	CP15/SS/4/T
		Nickel Bronze	100	148	54	L15	1.87	2.21	CP15/NB/4/T
	110mm Direct Fix	Satin Stainless Steel	110	148	54	L15	1.89	2.21	CP15/SS/110/T
		Nickel Bronze	110	148	54	L15	1.87	2.21	CP15/NB/110/T
Star	110mm PVC Throat	Satin Stainless Steel	110	148	151	L15	2.10	1.15	CS15/SS/B/T
		Nickel Bronze	110	148	151	L15	1.99	1.15	CS15/NB/B/T
	4" NPSM Threaded	Satin Stainless Steel	100	148	54	L15	2.10	1.15	CS15/SS/4/T
		Nickel Bronze	100	148	54	L15	1.99	1.15	CS15/NB/4/T
	110mm Direct Fix	Satin Stainless Steel	110	148	54	L15	2.10	1.15	CS15/SS/110/T
		Nickel Bronze	110	148	54	L15	1.99	1.15	CS15/NB/110/T
Concentric Ring	110mm PVC Throat	Satin Stainless Steel	110	148	151	L15	1.92	2.42	CC15/SS/B/T
		Nickel Bronze	110	148	151	L15	1.89	2.42	CC15/NB/B/T
	4" NPSM Threaded	Satin Stainless Steel	100	148	54	L15	1.92	2.42	CC15/SS/4/T
		Nickel Bronze	100	148	54	L15	1.89	2.42	CC15/NB/4/T
	110mm Direct Fix	Satin Stainless Steel	110	148	54	L15	1.92	2.42	CC15/SS/110/T
		Nickel Bronze	110	148	54	L15	1.89	2.42	CC15/NB/110/T

Cast Iron Floor Outlets - Grate/Bezel Product Tables



Grate Options with 150mm Ø Circular Bezels

To Specify Untrapped Drains: Remove the suffix /T



Compact Ring Grate + Bezel

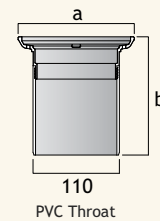


Anti-Ligature Grate + Bezel

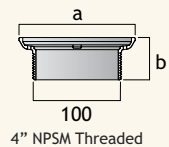


Solid Plate Grate + Bezel

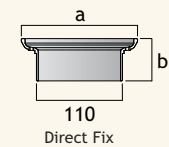
Bezel Connection Options For Each Grate Type



110
PVC Throat



100
4" NPSM Threaded



110
Direct Fix

Grate Options	Bezel Connection Options	Grates and Bezels Material/Finish	Outlet Size (mm)	a (mm)	b (mm)	Load Class	Weight (kg)	Flow Rate (l/s)	Product Code (Trapped)
Compact Ring	110mm PVC Throat	Satin Stainless Steel	110	148	151	L15	1.78	2.52	CR15/SS/B/T
		Nickel Bronze	110	148	151	L15	1.90	2.52	CR15/NB/B/T
	4" NPSM Threaded	Satin Stainless Steel	100	148	54	L15	1.78	2.52	CR15/SS/4/T
		Nickel Bronze	100	148	54	L15	1.90	2.52	CR15/NB/4/T
	110mm Direct Fix	Satin Stainless Steel	110	148	54	L15	1.78	2.52	CR15/SS/110/T
		Nickel Bronze	110	148	54	L15	1.90	2.52	CR15/NB/110/T
Anti-Ligature	110mm PVC Throat	Satin Stainless Steel	110	148	151	L15	1.88	1.80	CA15/SS/B/T
		Nickel Bronze	110	148	151	L15	2.20	1.80	CA15/NB/B/T
	4" NPSM Threaded	Satin Stainless Steel	100	148	54	L15	1.88	1.80	CA15/SS/4/T
		Nickel Bronze	100	148	54	L15	2.20	1.80	CA15/NB/4/T
	110mm Direct Fix	Satin Stainless Steel	110	148	54	L15	1.88	1.80	CA15/SS/110/T
		Nickel Bronze	110	148	54	L15	2.20	1.80	CA15/NB/110/T
Solid Plate	110mm PVC Throat	Satin Stainless Steel	110	148	151	L15	2.03	—	CB15/SS/B/T
		Satin Stainless Steel (with Plug Seal*)	110	148	151	L15	2.03	—	RA/CB15/SS/B
		Nickel Bronze	110	148	151	L15	2.30	—	CB15/NB/B/T
	4" NPSM Threaded	Nickel Bronze (with Plug Seal*)	110	148	151	L15	2.30	—	RA/CB15/NB/B
		Satin Stainless Steel	100	148	54	L15	2.03	—	CA15/SS/4/T
		Satin Stainless Steel (with Plug Seal*)	100	148	54	L15	2.03	—	RA/CA15/SS/4
	110mm Direct Fix	Nickel Bronze	100	148	54	L15	2.30	—	CA15/NB/4/T
		Nickel Bronze (with Plug Seal*)	100	148	54	L15	2.30	—	RA/CA15/NB/4
		Satin Stainless Steel	110	148	54	L15	2.03	—	CA15/SS/110/T
		Satin Stainless Steel (with Plug Seal*)	110	148	54	L15	2.03	—	RA/CA15/SS/110
		Nickel Bronze	110	148	54	L15	2.30	—	CA15/NB/110/T
		Nickel Bronze (with Plug Seal*)	110	148	54	L15	2.30	—	RA/CA15/NB/110

* (no trap)

Cast Iron Floor Outlets - Grate/Bezel Product Tables

Harmer Cast Iron Floor Drain grates and bezels range offers a wide selection of designs to suit flow rate and load class requirements from K3 to M125. Available in either a satin stainless steel or nickel bronze finish, both are durable and provide a stylish long lasting finish.

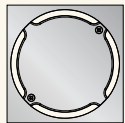
All the grates come with a choice of three bezel connections to suit any required pipework connection. Grates & bezel kits come trapped as standard, if a non-trapped version is required please remove the suffix /T.

150mm x 150mm Square Bezels

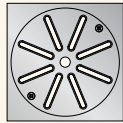
The 150mm x 150mm square grate & bezel kits come in a choice of 6 grate options to suit any application and environment including solid plate for rodding access. The square bezel is suited to a tile floor finish.

Grate Options with 150mm x 150mm Square Bezels

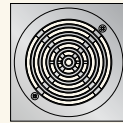
To Specify Untrapped Drains: Remove the suffix /T



Plain Cap Grate + Bezel

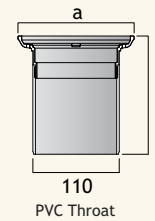


Star Grate + Bezel

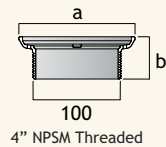


Concentric Ring Grate + Bezel

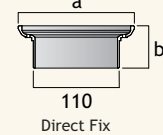
Bezel Connection Options For Each Grate Type



110
PVC Throat



100
4" NPSM Threaded



110
Direct Fix

Grate Options	Bezel Connection 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	110mm PVC Throat	Satin Stainless Steel	110	150	151	L15	2.01	2.21	TP15/SS/B/T
		Nickel Bronze	110	150	151	L15	1.92	2.21	TP15/NB/B/T
	4" NPSM Threaded	Satin Stainless Steel	100	150	54	L15	2.01	2.21	TP15/SS/4/T
		Nickel Bronze	100	150	54	L15	1.92	2.21	TP15/NB/4/T
	110mm Direct Fix	Satin Stainless Steel	110	150	54	L15	2.01	2.21	TP15/SS/110/T
		Nickel Bronze	110	150	54	L15	1.92	2.21	TP15/NB/110/T
Star	110mm PVC Throat	Satin Stainless Steel	110	150	151	L15	2.22	1.15	TS15/SS/B/T
		Nickel Bronze	110	150	151	L15	2.04	1.15	TS15/NB/B/T
	4" NPSM Threaded	Satin Stainless Steel	100	150	54	L15	2.02	1.15	TS15/SS/4/T
		Nickel Bronze	100	150	54	L15	2.04	1.15	TS15/NB/4/T
	110mm Direct Fix	Satin Stainless Steel	110	150	54	L15	2.22	1.15	TS15/SS/110/T
		Nickel Bronze	110	150	54	L15	2.04	1.15	TS15/NB/110/T
Concentric Ring	110mm PVC Throat	Satin Stainless Steel	110	150	151	L15	2.04	2.42	TC15/SS/B/T
		Nickel Bronze	110	150	151	L15	1.94	2.42	TC15/NB/B/T
	4" NPSM Threaded	Satin Stainless Steel	100	150	54	L15	2.04	2.42	TC15/SS/4/T
		Nickel Bronze	100	150	54	L15	1.94	2.42	TC15/NB/4/T
	110mm Direct Fix	Satin Stainless Steel	110	150	54	L15	2.04	2.42	TC15/SS/110/T
		Nickel Bronze	110	150	54	L15	1.94	2.42	TC15/NB/110/T

Cast Iron Floor Outlets - Grate/Bezel Product Tables

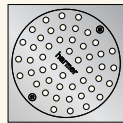


Grate Options with 150mm x 150mm Square Bezels

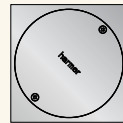
To Specify Untrapped Drains: Remove the suffix /T



Compact Ring Grate + Bezel

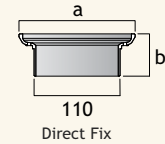
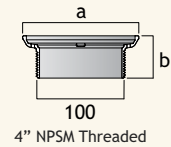
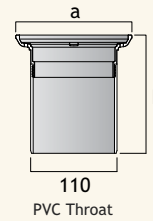


Anti-Ligature Grate + Bezel



Solid Plate Grate + Bezel

Bezel Connection Options For Each Grate Type



Grate Options	Bezel Connection Options	Grates and Bezels Material/Finish	Outlet Size (mm)	a (mm)	b (mm)	Load Class	Weight (kg)	Flow Rate (l/s)	Product Code (Trapped)
Compact Ring	110mm PVC Throat	Satin Stainless Steel	110	150	151	L15	1.88	2.52	TR15/SS/B/T
		Nickel Bronze	110	150	151	L15	1.93	2.52	TR15/NB/B/T
	4" NPSM Threaded	Satin Stainless Steel	100	150	54	L15	1.88	2.52	TR15/SS/4/T
		Nickel Bronze	100	150	54	L15	1.93	2.52	TR15/NB/4/T
	110mm Direct Fix	Satin Stainless Steel	110	150	54	L15	1.88	2.52	TR15/SS/110/T
		Nickel Bronze	110	150	54	L15	1.93	2.52	TR15/NB/110/T
Anti-Ligature	110mm PVC Throat	Satin Stainless Steel	110	150	151	L15	1.90	1.80	TA15/SS/B/T
		Nickel Bronze	110	150	151	L15	2.25	1.80	TA15/NB/B/T
	4" NPSM Threaded	Satin Stainless Steel	100	150	54	L15	1.90	1.80	TA15/SS/4/T
		Nickel Bronze	100	150	54	L15	2.25	1.80	TA15/NB/4/T
	110mm Direct Fix	Satin Stainless Steel	110	150	54	L15	1.90	1.80	TA15/SS/110/T
		Nickel Bronze	110	150	54	L15	2.25	1.80	TA15/NB/110/T
Solid Plate	110mm PVC Throat	Satin Stainless Steel	110	150	151	L15	2.15	—	TB15/SS/B/T
		Satin Stainless Steel (with Plug Seal*)	110	150	151	L15	2.15	—	RA/TB15/SS/B
		Nickel Bronze	110	150	151	L15	2.35	—	TB15/NB/B/T
		Nickel Bronze (with Plug Seal*)	110	150	151	L15	2.35	—	RA/TB15/NB/B
	4" NPSM Threaded	Satin Stainless Steel	100	150	54	L15	2.15	—	TA15/SS/4/T
		Satin Stainless Steel (with Plug Seal*)	100	150	54	L15	2.15	—	RA/TA15/SS/4
		Nickel Bronze	100	150	54	L15	2.35	—	TA15/NB/4/T
		Nickel Bronze (with Plug Seal*)	100	150	54	L15	2.35	—	RA/TA15/NB/4
	110mm Direct Fix	Satin Stainless Steel	110	150	54	L15	2.15	—	TA15/SS/110/T
		Satin Stainless Steel (with Plug Seal*)	110	150	54	L15	2.15	—	RA/TA15/SS/110
		Nickel Bronze	110	150	54	L15	2.35	—	TA15/NB/110/T
		Nickel Bronze (with Plug Seal*)	110	150	54	L15	2.35	—	RA/TA15/NB/110

* (no trap)

Cast Iron Floor Outlets - Grate/Bezel Product Tables

Harmer Cast Iron Floor Drain grates and bezels range offers a wide selection of designs to suit flow rate and load class requirements from K3 to M125. Available in either a satin stainless steel or nickel bronze finish, both are durable and provide a stylish long lasting finish.

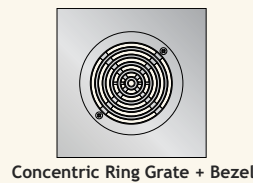
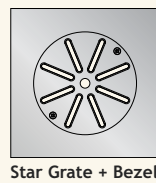
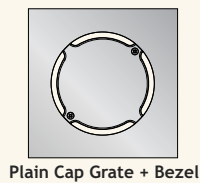
All the grates come with a choice of three bezel connections to suit any required pipework connection. Grates & bezel kits come trapped as standard, if a non-trapped version is required please remove the suffix /T.

200mm x 200mm Square Bezels

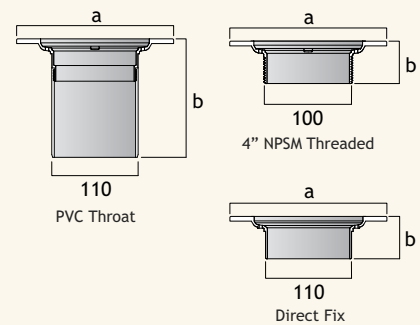
The 200mm x 200mm square grate & bezel kits come in a choice of 6 grate options to suit any application and environment including solid plate for rodding access. The square bezel is suited to a tile floor finish.

Grate Options with 200mm x 200mm Square Bezels

To Specify Untrapped Drains: Remove the suffix /T



Bezel Connection Options For Each Grate Type



Grate Options	Bezel Connection 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	110mm PVC Throat	Satin Stainless Steel	110	200	151	L15	2.51	2.21	TP20/SS/B/T
		Nickel Bronze	110	200	151	L15	2.97	2.21	TP20/NB/B/T
	4" NPSM Threaded	Satin Stainless Steel	100	200	54	L15	2.51	2.21	TP20/SS/4/T
		Nickel Bronze	100	200	54	L15	2.97	2.21	TP20/NB/4/T
	110mm Direct Fix	Satin Stainless Steel	110	200	54	L15	2.51	2.21	TP20/SS/110/T
		Nickel Bronze	110	200	54	L15	2.97	2.21	TP20/NB/110/T
Star	110mm PVC Throat	Satin Stainless Steel	110	200	151	L15	2.72	1.15	TS20/SS/B/T
		Nickel Bronze	110	200	151	L15	3.09	1.15	TS20/NB/B/T
	4" NPSM Threaded	Satin Stainless Steel	100	200	54	L15	2.72	1.15	TS20/SS/4/T
		Nickel Bronze	100	200	54	L15	3.09	1.15	TS20/NB/4/T
	110mm Direct Fix	Satin Stainless Steel	110	200	54	L15	2.72	1.15	TS20/SS/110/T
		Nickel Bronze	110	200	54	L15	3.09	1.15	TS20/NB/110/T
Concentric Ring	110mm PVC Throat	Satin Stainless Steel	110	200	151	L15	2.54	2.42	TC20/SS/B/T
		Nickel Bronze	110	200	151	L15	2.99	2.42	TC20/NB/B/T
	4" NPSM Threaded	Satin Stainless Steel	100	200	54	L15	2.54	2.42	TC20/SS/4/T
		Nickel Bronze	100	200	54	L15	2.99	2.42	TC20/NB/4/T
	110mm Direct Fix	Satin Stainless Steel	110	200	54	L15	2.54	2.42	TC20/SS/110/T
		Nickel Bronze	110	200	54	L15	2.99	2.42	TC20/NB/110/T

Cast Iron Floor Outlets - Grate/Bezel Product Tables

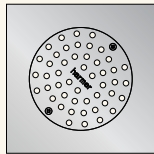


Grate Options with 200mm x 200mm Square Bezels

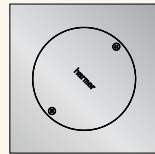
To Specify Untrapped Drains: Remove the suffix /T



Compact Ring Grate + Bezel

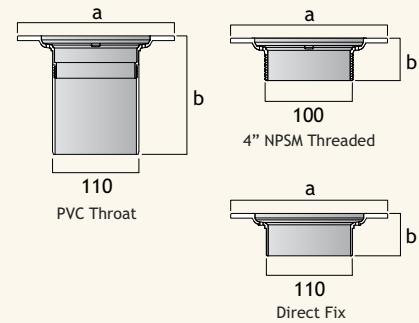


Anti-Ligature Grate + Bezel



Solid Plate Grate + Bezel

Bezel Connection Options For Each Grate Type



Grate Options	Bezel Connection Options	Grates and Bezels Material/Finish	Outlet Size (mm)	a (mm)	b (mm)	Load Class	Weight (kg)	Flow Rate (l/s)	Product Code (Trapped)
Compact Ring	110mm PVC Throat	Satin Stainless Steel	110	200	151	L15	2.40	2.52	TR20/SS/B/T
		Nickel Bronze	110	200	151	L15	3.00	2.52	TR20/NB/B/T
	4" NPSM Threaded	Satin Stainless Steel	100	200	54	L15	2.40	2.52	TR20/SS/4/T
		Nickel Bronze	100	200	54	L15	3.00	2.52	TR20/NB/4/T
	110mm Direct Fix	Satin Stainless Steel	110	200	54	L15	2.40	2.52	TR20/SS/110/T
		Nickel Bronze	110	200	54	L15	3.00	2.52	TR20/NB/110/T
Anti-Ligature	110mm PVC Throat	Satin Stainless Steel	110	200	151	L15	2.50	1.80	TA20/SS/B/T
		Nickel Bronze	110	200	151	L15	3.30	1.80	TA20/NB/B/T
	4" NPSM Threaded	Satin Stainless Steel	100	200	54	L15	2.50	1.80	TA20/SS/4/T
		Nickel Bronze	100	200	54	L15	3.30	1.80	TA20/NB/4/T
	110mm Direct Fix	Satin Stainless Steel	110	200	54	L15	2.50	1.80	TA20/SS/110/T
		Nickel Bronze	110	200	54	L15	3.30	1.80	TA20/NB/110/T
Solid Plate	110mm PVC Throat	Satin Stainless Steel	110	200	151	L15	2.65	—	TB20/SS/B/T
		Satin Stainless Steel (with Plug Seal*)	110	200	151	L15	2.65	—	RA/TB20/SS/B
		Nickel Bronze	110	200	151	L15	3.40	—	TB20/NB/B/T
	4" NPSM Threaded	Nickel Bronze (with Plug Seal*)	110	200	151	L15	3.40	—	RA/TB20/NB/B
		Satin Stainless Steel	100	200	54	L15	2.65	—	TB20/SS/4/T
		Satin Stainless Steel (with Plug Seal*)	100	200	54	L15	2.65	—	RA/TB20/SS/4
	110mm Direct Fix	Nickel Bronze	100	200	54	L15	3.40	—	TB20/NB/4/T
		Nickel Bronze (with Plug Seal*)	100	200	54	L15	3.40	—	RA/TB20/NB/4
		Satin Stainless Steel	110	200	54	L15	2.65	—	TB20/SS/110/T
		Satin Stainless Steel (with Plug Seal*)	110	200	54	L15	2.65	—	RA/TB20/SS/110
* (no trap)	110mm Direct Fix	Nickel Bronze	110	200	54	L15	3.40	—	TB20/NB/110/T
		Nickel Bronze (with Plug Seal*)	110	200	54	L15	3.40	—	RA/TB20/NB/110

Cast Iron Floor Outlets - Grate/Bezel Product Tables

Harmer Cast Iron Floor Drain grates and bezels range offers a wide selection of designs to suit flow rate and load class requirements from K3 to M125. Available in either a satin stainless steel or nickel bronze finish, both are durable and provide a stylish long lasting finish.

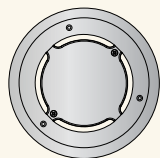
All the grates come with a choice of three bezel connections to suit any required pipework connection. Grates & bezel kits come trapped as standard, if a non-trapped version is required please remove the suffix /T.

200mm Circular Bezels

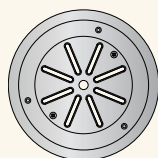
The 200mm circular grate & bezel kits come in a choice of 6 grate options including solid plate for rodding access. The 200mm vinyl is especially suited to vinyl floor application.

Grate Options with 200mm Ø Circular Bezels for Vinyl

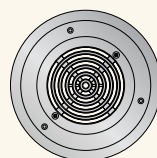
To Specify Untrapped Drains: Remove the suffix /T



Plain Cap Grate + Bezel

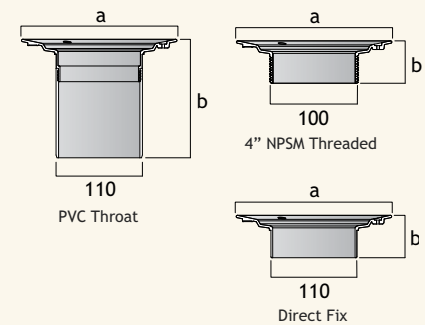


Star Grate + Bezel



Concentric Ring Grate + Bezel

Bezel Connection Options For Each Grate Type



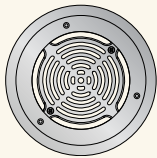
Grate Options	Bezel Connection Options	Grates and Bezels Material/Finish	Outlet Size (mm)	a (mm)	b (mm)	Load Class	Weight (kg)	Flow Rate (l/s)	Product Code (Trapped)
Plain Cap	110mm PVC Throat	Satin Stainless Steel	110	200	151	L15	2.10	2.21	VP20/SS/B/T
		Nickel Bronze	110	200	151	L15	2.32	2.21	VP20/NB/B/T
	4" NPSM Threaded	Satin Stainless Steel	100	200	54	L15	2.10	2.21	VP20/SS/4/T
		Nickel Bronze	100	200	54	L15	2.32	2.21	VP20/NB/4/T
	110mm Direct Fix	Satin Stainless Steel	110	200	54	L15	2.10	2.21	VP20/SS/110/T
		Nickel Bronze	110	200	54	L15	2.32	2.21	VP20/NB/110/T
Star	110mm PVC Throat	Satin Stainless Steel	110	200	151	L15	2.31	1.15	VS20/SS/B/T
		Nickel Bronze	110	200	151	L15	2.44	1.15	VS20/NB/B/T
	4" NPSM Threaded	Satin Stainless Steel	100	200	54	L15	2.31	1.15	VS20/SS/4/T
		Nickel Bronze	100	200	54	L15	2.44	1.15	VS20/NB/4/T
	110mm Direct Fix	Satin Stainless Steel	110	200	54	L15	2.31	1.15	VS20/SS/110/T
		Nickel Bronze	110	200	54	L15	2.44	1.15	VS20/NB/110/T
Concentric Ring	110mm PVC Throat	Satin Stainless Steel	110	200	151	L15	2.13	2.42	VC20/SS/B/T
		Nickel Bronze	110	200	151	L15	2.34	2.42	VC20/NB/B/T
	4" NPSM Threaded	Satin Stainless Steel	100	200	54	L15	2.13	2.42	VC20/SS/4/T
		Nickel Bronze	100	200	54	L15	2.34	2.42	VC20/NB/4/T
	110mm Direct Fix	Satin Stainless Steel	110	200	54	L15	2.13	2.42	VC20/SS/110/T
		Nickel Bronze	110	200	54	L15	2.34	2.42	VC20/NB/110/T

Cast Iron Floor Outlets - Grate/Bezel Product Tables

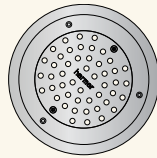


Grate Options with 200mm Ø Circular Bezels for Vinyl

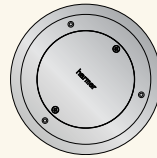
To Specify Untrapped Drains: Remove the suffix /T



Compact Ring Grate + Bezel

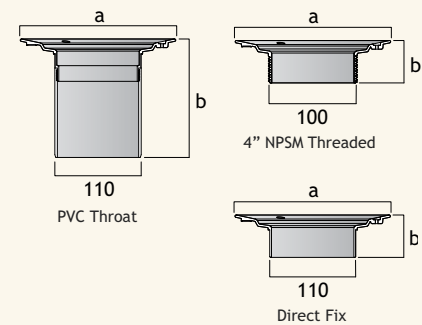


Anti-Ligature Grate + Bezel



Solid Plate Grate + Bezel

Bezel Connection Options For Each Grate Type



Grate Options	Bezel Connection Options	Grates and Bezels Material/Finish	Outlet Size (mm)	a (mm)	b (mm)	Load Class	Weight (kg)	Flow Rate (l/s)	Product Code (Trapped)
Compact Ring	110mm PVC Throat	Satin Stainless Steel	110	200	151	L15	2.49	2.52	VR20/SS/B/T
		Nickel Bronze	110	200	151	L15	3.15	2.52	VR20/NB/B/T
	4" NPSM Threaded	Satin Stainless Steel	100	200	54	L15	2.49	2.52	VR20/SS/4/T
		Nickel Bronze	100	200	54	L15	3.15	2.52	VR20/NB/4/T
	110mm Direct Fix	Satin Stainless Steel	110	200	54	L15	2.49	2.52	VR20/SS/110/T
		Nickel Bronze	110	200	54	L15	3.15	2.52	VR20/NB/110/T
Anti-Ligature	110mm PVC Throat	Satin Stainless Steel	110	200	151	L15	2.59	1.80	VA20/SS/B/T
		Nickel Bronze	110	200	151	L15	3.45	1.80	VA20/NB/B/T
	4" NPSM Threaded	Satin Stainless Steel	100	200	54	L15	2.59	1.80	VA20/SS/4/T
		Nickel Bronze	100	200	54	L15	3.45	1.80	VA20/NB/4/T
	110mm Direct Fix	Satin Stainless Steel	110	200	54	L15	2.59	1.80	VA20/SS/110/T
		Nickel Bronze	110	200	54	L15	3.45	1.80	VA20/NB/110/T
Solid Plate	110mm PVC Throat	Satin Stainless Steel	110	200	151	L15	2.74	–	VB20/SS/B/T
		Satin Stainless Steel (with Plug Seal*)	110	200	151	L15	2.74	–	RA/VB20/SS/B
		Nickel Bronze	110	200	151	L15	3.55	–	VB20/NB/B/T
		Nickel Bronze (with Plug Seal*)	110	200	151	L15	3.55	–	RA/VB20/NB/B
	4" NPSM Threaded	Satin Stainless Steel	100	200	54	L15	2.74	–	VB20/SS/4/T
		Satin Stainless Steel (with Plug Seal*)	100	200	54	L15	2.74	–	RA/VB20/SS/4
		Nickel Bronze	100	200	54	L15	3.55	–	VB20/NB/4/T
		Nickel Bronze (with Plug Seal*)	100	200	54	L15	3.55	–	RA/VB20/NB/4
	110mm Direct Fix	Satin Stainless Steel	110	200	54	L15	2.74	–	VB20/SS/110/T
		Satin Stainless Steel (with Plug Seal*)	110	200	54	L15	2.74	–	RA/VB20/SS/110
		Nickel Bronze	110	200	54	L15	3.55	–	VB20/NB/110/T
		Nickel Bronze (with Plug Seal*)	110	200	54	L15	3.55	–	RA/VB20/NB/110

* (no trap)

Cast Iron Floor Outlets - Grate/Bezel Product Tables

Harmer Cast Iron Floor Drain grates and bezels range offers a wide selection of designs to suit flow rate and load class requirements from K3 to M125. Available in either a satin stainless steel or nickel bronze finish, both are durable and provide a stylish long lasting finish. The square heavy duty grate bezel is made from sheradised ductile iron.

The miscellaneous grates offer a selection of 150mm x 150mm square grates and bezels including a slot grate and square solid plate grate for rodding access along with a stylish Quattro square perforated grating.

To complement the range three large grate options are available, including a satin stainless heal safe and cast iron circular and heavy duty grate and bezel. The heavy duty grate is provided with a special bezel adaptor to facilitate a M125 load class rating.

All the grates come with a choice of three bezel connections to suit any required pipework connection. Grates & bezel kits come trapped as standard, if a non-trapped version is required please remove the suffix /T.

Miscellaneous Grates and Bezels

To Specify Untrapped Drains: Remove the suffix /T



Grate Options	Bezel Connection 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	110mm PVC Throat	Satin Stainless Steel	110	150	151	L15	1.95	2.82	SG15/SS/B/T
		Nickel Bronze	110	150	151	L15	2.20	2.82	SG15/NB/B/T
	4" NPSM Threaded	Satin Stainless Steel	100	150	54	L15	1.95	2.82	SG15/SS/4/T
		Nickel Bronze	100	150	54	L15	2.20	2.82	SG15/NB/4/T
	110mm Direct Fix	Satin Stainless Steel	110	150	54	L15	1.95	2.82	SG15/SS/110/T
		Nickel Bronze	110	150	54	L15	2.20	2.82	SG15/NB/110/T
Quattro	110mm PVC Throat	Satin Stainless Steel	110	150	151	L15	2.11	2.19	SH15/SS/B/T
		Nickel Bronze	110	150	151	L15	2.30	2.19	SH15/NB/B/T
	4" NPSM Threaded	Satin Stainless Steel	100	150	54	L15	2.11	2.19	SH15/SS/4/T
		Nickel Bronze	100	150	54	L15	2.30	2.19	SH15/NB/4/T
	110mm Direct Fix	Satin Stainless Steel	110	150	54	L15	2.11	2.19	SH15/SS/110/T
		Nickel Bronze	110	150	54	L15	2.30	2.19	SH15/NB/110/T
Solid Plate	110mm PVC Throat	Satin Stainless Steel	110	150	151	L15	2.28	–	SB15/SS/B/T
		Satin Stainless Steel (with Plug Seal*)	110	150	151	L15	2.28	–	RA/SB15/SS/B
		Nickel Bronze	110	150	151	L15	2.50	–	SB15/NB/B/T
		Nickel Bronze (with Plug Seal*)	110	150	151	L15	2.50	–	RA/SB15/NB/B
	4" NPSM Threaded	Satin Stainless Steel	100	150	54	L15	2.28	–	SB15/SS/4/T
		Satin Stainless Steel (with Plug Seal*)	100	150	54	L15	2.28	–	RA/SB15/SS/4
		Nickel Bronze	100	150	54	L15	2.50	–	SB15/NB/4/T
		Nickel Bronze (with Plug Seal*)	100	150	54	L15	2.50	–	RA/SB15/NB/4
	110mm Direct Fix	Satin Stainless Steel	110	150	54	L15	2.28	–	SB15/SS/110/T
		Satin Stainless Steel (with Plug Seal*)	110	150	54	L15	2.28	–	RA/SB15/SS/110
		Nickel Bronze	110	150	54	L15	2.50	–	SB15/NB/110/T
		Nickel Bronze (with Plug Seal*)	110	150	54	L15	2.50	–	RA/SB15/NB/110

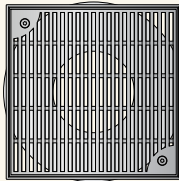
* (no trap)

Cast Iron Floor Outlets - Grate/Bezel Product Tables

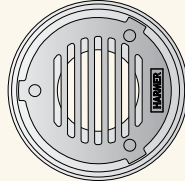
Miscellaneous Grates and Bezels

To Specify Untrapped Drains: Remove the suffix /T

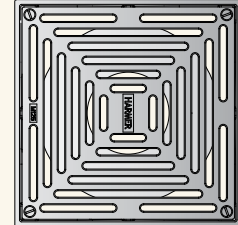
Heel Proof Grate
+
Bezel



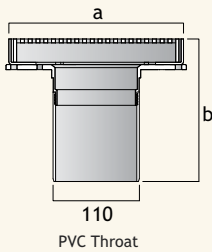
Circular Light Duty Grate
+
Bezel



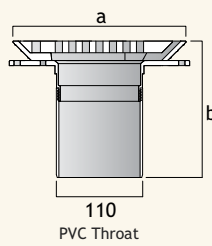
Square Heavy Duty Grate
+
Bezel



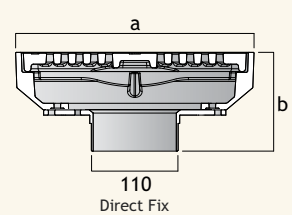
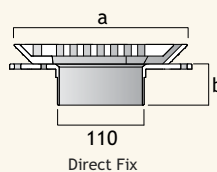
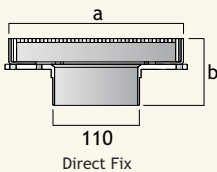
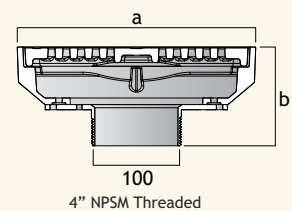
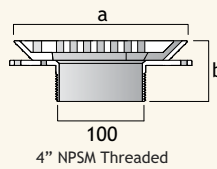
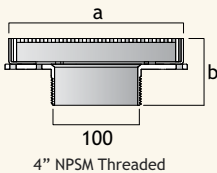
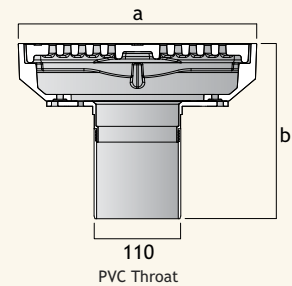
Bezel Connection Options
for
Heel Proof Grate



Bezel Connection Options
for
Circular Light Duty Grate



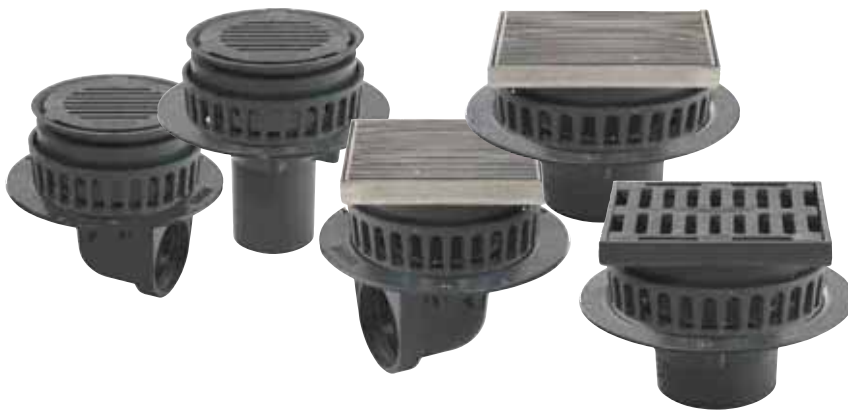
Bezel Connection Options
for
Square Heavy Duty Grate



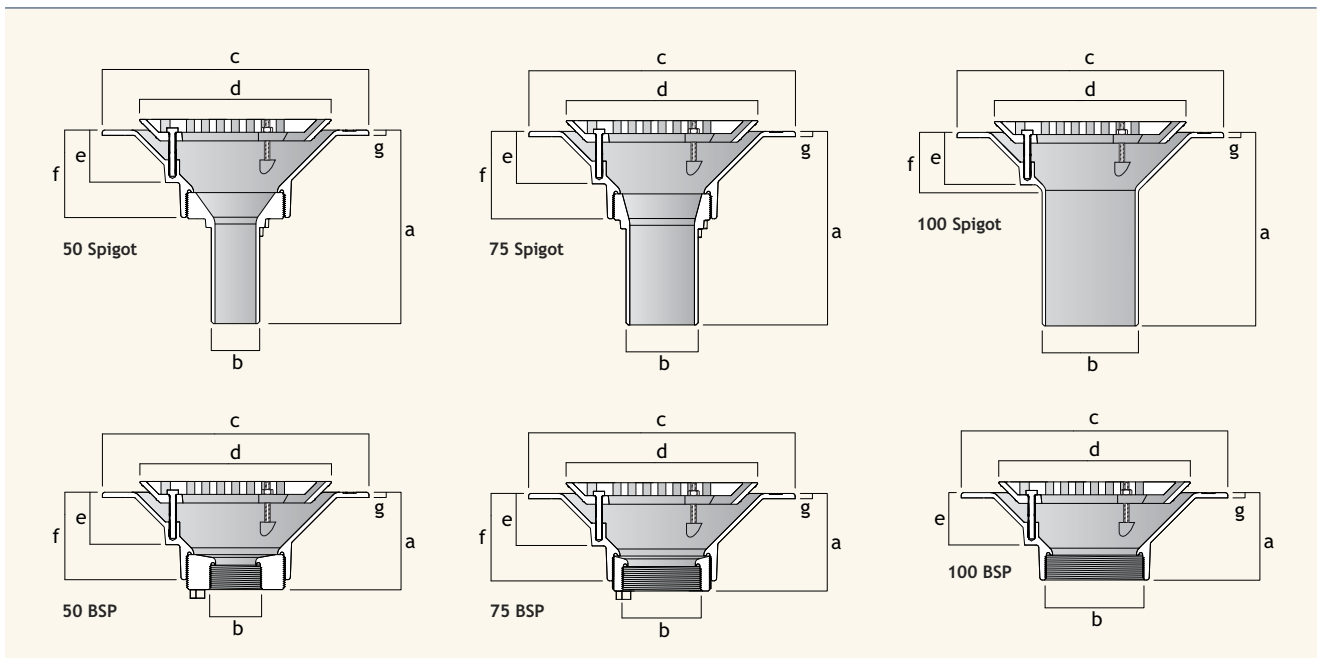
Grate Options	Bezel Connection Options	Grates and Bezels Material/Finish	Outlet Size (mm)	a (mm)	b (mm)	Load Class	Weight (kg)	Flow Rate (l/s)	Product Code (Trapped)
Heel Proof	110mm PVC Throat	Satin Stainless Steel	110	225	182	M125	6.0	3.5	S225/SS/B/T
	4" NPSM Threaded	Satin Stainless Steel	100	225	84	M125	6.0	3.5	S225/SS/4/T
	110mm Direct Fix	Satin Stainless Steel	110	225	84	M125	6.0	3.5	S225/SS/110/T
Circular Light Duty	110mm PVC Throat	Sheradised Ductile Iron	110	220	174	L15	3.6	3.5	C220/DI/B/T
	4" NPSM Threaded	Sheradised Ductile Iron	100	220	77	L15	3.6	3.5	C220/DI/4/T
	110mm Direct Fix	Sheradised Ductile Iron	110	220	77	L15	3.6	3.5	C220/DI/110/T
Square Heavy Duty	110mm PVC Throat	Sheradised Ductile Iron	110	323	227	M125	12.8	6.9	S300/DI/B/T
	4" NPSM Threaded	Sheradised Ductile Iron	100	323	130	M125	12.8	6.9	S300/DI/4/T
	110mm Direct Fix	Sheradised Ductile Iron	110	323	130	M125	12.8	6.9	S300/DI/110/T

Cast Iron Floor Outlets - Plant Room Drainage Assemblies Product Tables

The Harmer Cast Iron Floor Drain assemblies are designed for applications with a composite or asphalt floor finish such as plant rooms with a concrete or screed floor. The range includes medium and large sump drain bodies, with horizontal or vertical outlets. Available either as a fixed level drain body and grate which is designed for use in a finished floor, or as an adjustable height grate which utilises an extension piece. This allows fine adjustment of the grate height to suit unfinished floors such as bare concrete.



Medium Sump Vertical Outlet Bodies with Circular Ductile Iron Grate



Outlet Size (mm)	Connection	a (mm)	b (mm/inches)	c (mm)	d (mm)	e (mm)	f (mm)	g (mm)	Weight (kg)	Flow Rate (l/s)	Product Code
50	Spigot	220	60	305	220	60	100	6	8.5	1.7	CPV50/F
75	Spigot	220	83	305	220	60	100	6	9.1	3.6	CPV75F
100	Spigot	190	110	305	220	60	70	6	8.0	3.6	CPV100F
50	BSP	112	2	305	220	60	100	6	8.9	1.7	CPV50T/F
75	BSP	112	3	305	220	60	100	6	8.1	3.6	CPV75T/F
100	BSP	100	4	305	220	60	—	6	6.8	3.6	CPV100T/F

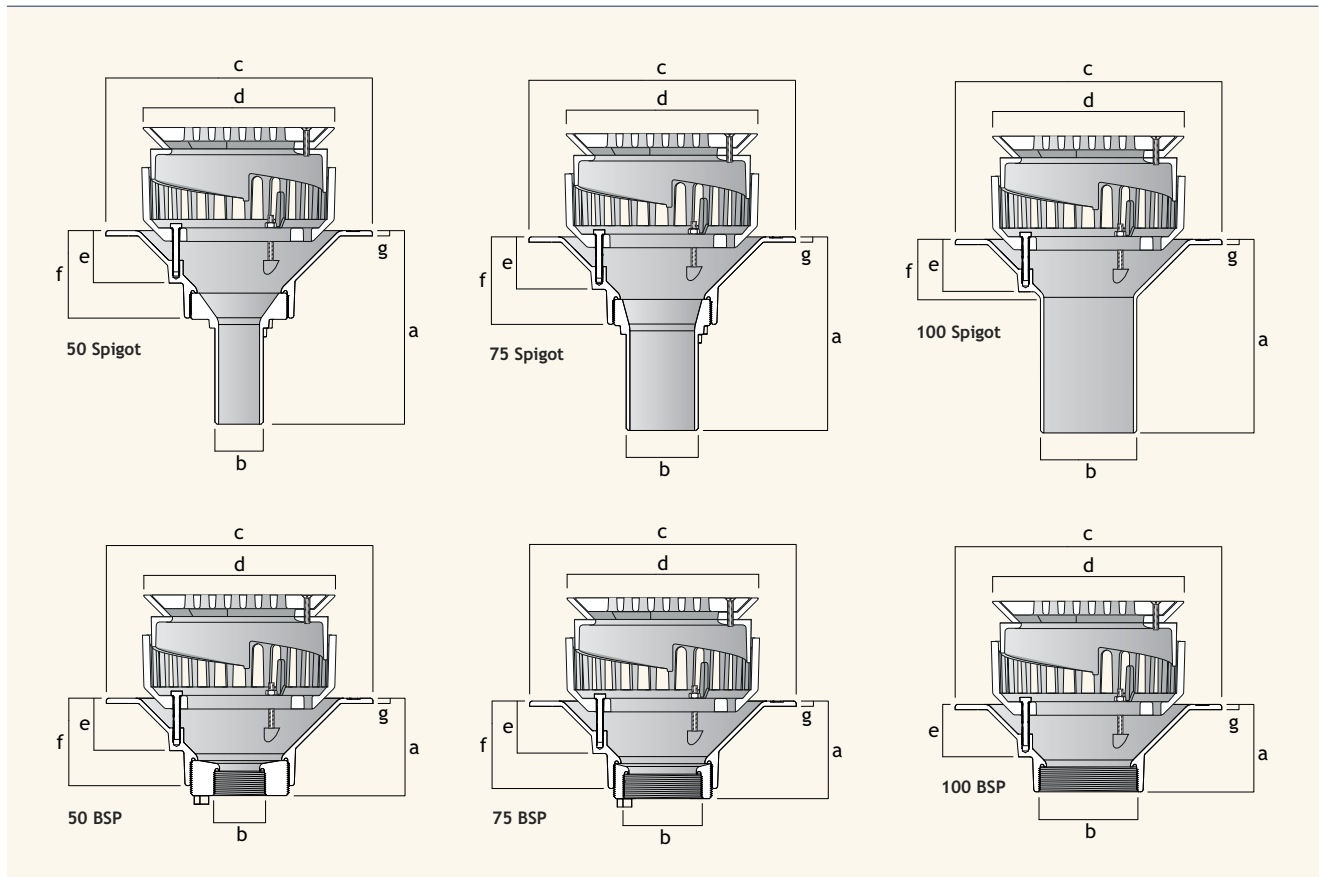
Cast Iron Floor Outlets - Plant Room Drainage Assemblies Product Tables

The Cast Iron Floor Drains include a clamping collar for a DPM or membrane to ensure a watertight seal. Available with either a BSP thread for connection to a Harmer threaded spigot adaptor and a spigot connection which can be connected direct to Harmer SML pipework to BS EN 877.



Medium Sump Vertical Outlet Bodies with Extension Piece and Adjustable Height Circular Ductile Iron Grate

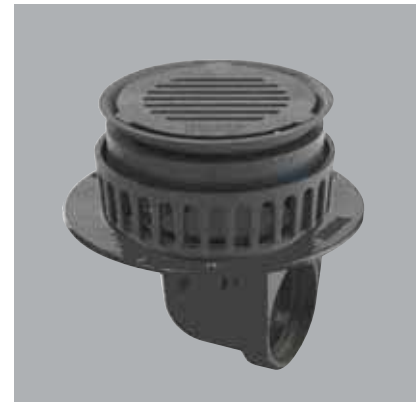
Height adjustment range of the grate above the drain body flange varies from 85-110mm



Outlet Size (mm)	Connection	a (mm)	b (mm/inches)	c (mm)	d (mm)	e (mm)	f (mm)	g (mm)	Weight (kg)	Flow Rate (l/s)	Product Code
50	Spigot	220	60	305	220	60	100	6	12.7	1.7	CPV50/ECD
75	Spigot	220	83	305	220	60	100	6	13.3	3.6	CPV75/ECD
100	Spigot	190	110	305	220	60	70	6	12.2	3.6	CPV100/ECD
50	BSP	112	2	305	220	60	100	6	13.1	1.7	CPV50T/ECD
75	BSP	112	3	305	220	60	100	6	12.3	3.6	CPV75T/ECD
100	BSP	100	4	305	220	60	-	6	11.0	3.6	CPV100T/ECD

Cast Iron Floor Outlets - Plant Room Drainage Assemblies Product Tables

The Cast Iron Floor Drains include a clamping collar for a DPM or membrane to ensure a watertight seal. Available with either a BSP thread for connection to a Harmer threaded spigot adaptor and a spigot connection which can be connected direct to Harmer SML pipework to BS EN 877.



Medium Sump Horizontal Outlet Bodies with Circular Ductile Iron Grate

Outlet Size (mm)	Connection	a (mm)	b (inches)	c (mm)	d (mm)	e (mm)	f (mm)	g (mm)	Weight (kg)	Flow Rate (l/s)	Product Code
50	BSP	105	2	305	220	165	60	6	10.3	1.7	CPH50T/F
75	BSP	105	3	305	220	165	60	6	9.5	3.6	CPH75T/F
100	BSP	90	4	305	220	165	60	6	8.3	3.6	CPH100T/F

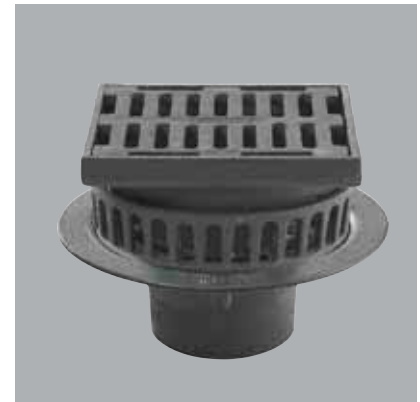
Medium Sump Horizontal Outlet Bodies with Extension Piece and Adjustable Height Circular Ductile Iron Grate

Height adjustment range of the grate above the drain body flange varies from 85-110mm

Outlet Size (mm)	Connection	a (mm)	b (inches)	c (mm)	d (mm)	e (mm)	f (mm)	g (mm)	Weight (kg)	Flow Rate (l/s)	Product Code
50	BSP	105	2	305	220	165	60	6	14.5	1.7	CPH50T/ECD
75	BSP	105	3	305	220	165	60	6	13.7	3.6	CPH75T/ECD
100	BSP	90	4	305	220	165	60	6	12.5	3.6	CPH100T/ECD

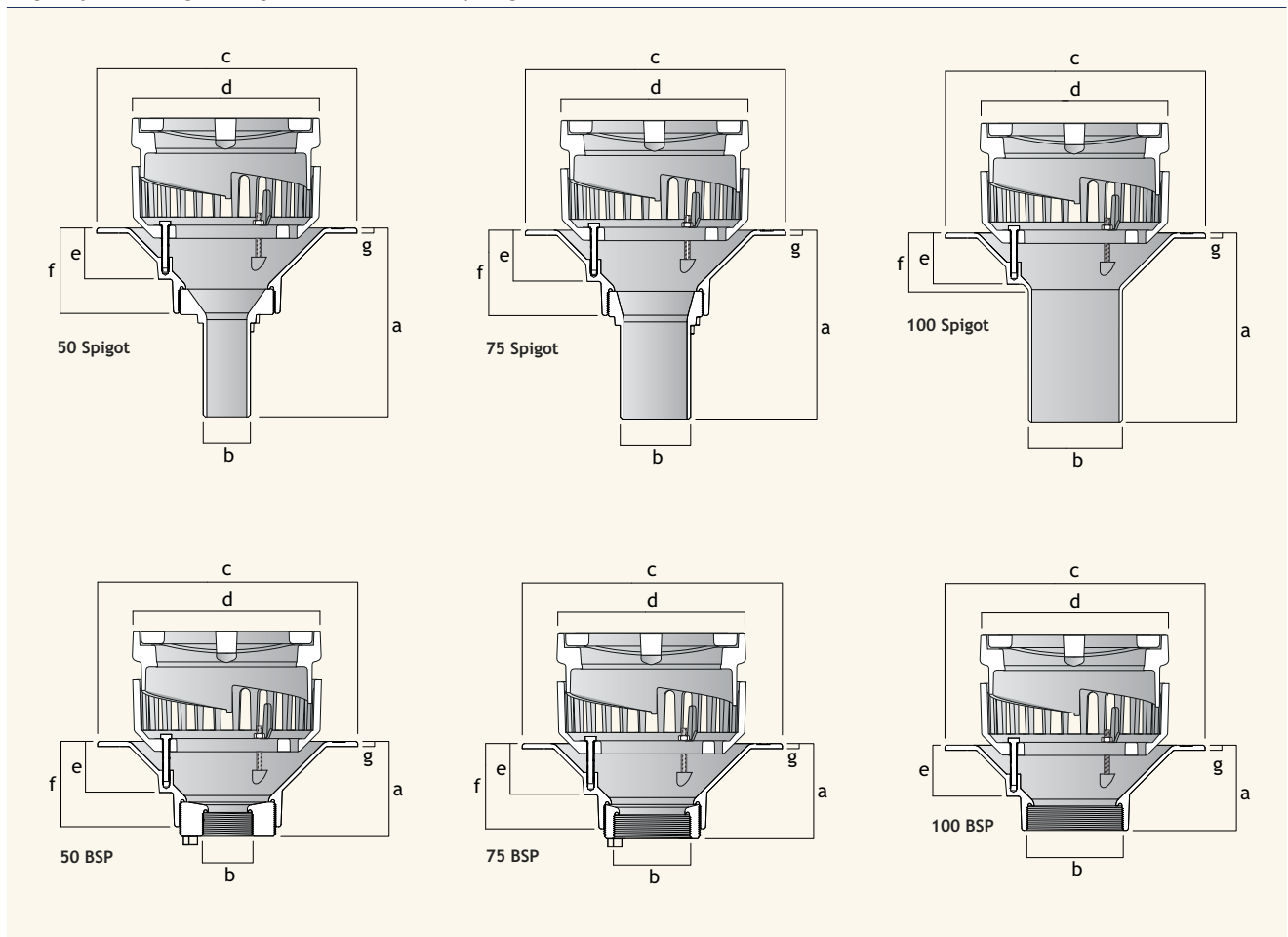
Cast Iron Floor Outlets - Plant Room Drainage Assemblies Product Tables

The Cast Iron Floor Drains include a clamping collar for a DPM or membrane to ensure a watertight seal. Available with either a BSP thread for connection to a Harmer threaded spigot adaptor and a spigot connection which can be connected direct to Harmer SML pipework to BS EN 877.



Medium Sump Vertical Outlet Bodies with Extension Piece and Adjustable Height Square Ductile Iron Grate

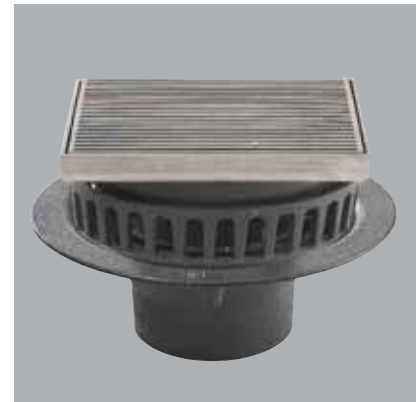
Height adjustment range of the grate above the drain body flange varies from 95-120mm



Outlet Size (mm)	Connection	a (mm)	b (mm/inches)	c (mm)	d (mm)	e (mm)	f (mm)	g (mm)	Weight (kg)	Flow Rate (l/s)	Product Code
50	Spigot	220	60	305	225	60	100	6	16.9	1.7	CPV50/ESD
75	Spigot	220	85	305	225	60	100	6	17.5	3.6	CPV75/ESD
100	Spigot	190	110	305	225	60	70	6	16.4	3.6	CPV100/ESD
50	BSP	112	2	305	225	60	100	6	17.3	1.7	CPV50T/ESD
75	BSP	112	3	305	225	60	100	6	16.5	3.6	CPV75T/ESD
100	BSP	100	4	305	225	60	—	6	15.2	3.6	CPV100T/ESD

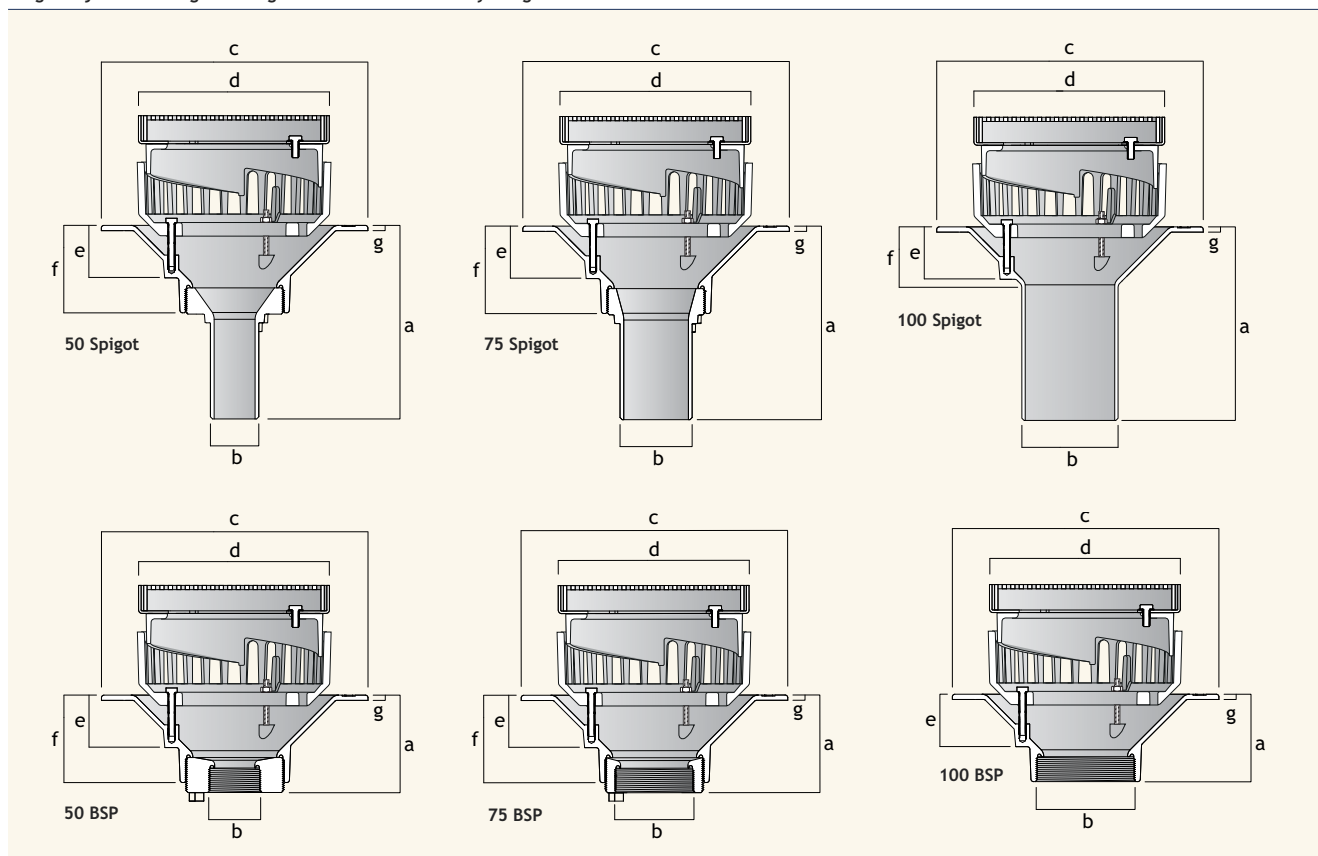
Cast Iron Floor Outlets - Plant Room Drainage Assemblies Product Tables

The Cast Iron Floor Drains include a clamping collar for a DPM or membrane to ensure a watertight seal. Available with either a BSP thread for connection to a Harmer threaded spigot adaptor and a spigot connection which can be connected direct to Harmer SML pipework to BS EN 877.



Medium Sump Vertical Outlet Bodies with Extension Piece and Adjustable Height Square Stainless Steel Grate

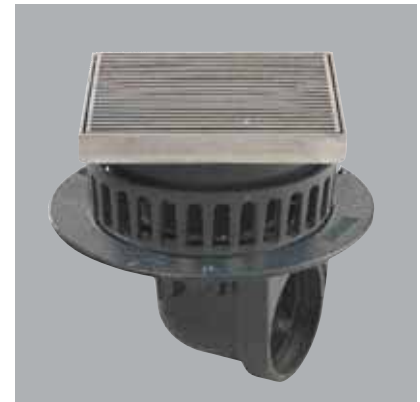
Height adjustment range of the grate above the drain body flange varies from 95-120mm



Outlet Size (mm)	Connection	a (mm)	b (mm/inches)	c (mm)	d (mm)	e (mm)	f (mm)	g (mm)	Weight (kg)	Flow Rate (l/s)	Product Code
50	Spigot	210	60	305	225	60	100	6	15.0	1.7	CPV50/ESS
75	Spigot	220	83	305	225	60	100	6	15.6	3.6	CPV75/ESS
100	Spigot	190	110	305	225	60	70	6	14.5	3.6	CPV100/ESS
50	BSP	112	2	305	225	60	100	6	15.4	1.7	CPV50T/ESS
75	BSP	112	3	305	225	60	100	6	14.6	3.6	CPV75T/ESS
100	BSP	100	4	305	225	60	-	6	13.3	3.6	CPV100T/ESS

Cast Iron Floor Outlets - Plant Room Drainage Assemblies Product Tables

The Cast Iron Floor Drains include a clamping collar for a DPM or membrane to ensure a watertight seal. Available with either a BSP thread for connection to a Harmer threaded spigot adaptor and a spigot connection which can be connected direct to Harmer SML pipework to BS EN 877.



Medium Sump Horizontal Outlet Bodies with Extension Piece and Adjustable Height Square Ductile Iron Grate

Height adjustment range of the grate above the drain body flange varies from 95-120mm

Outlet Size (mm)	Connection	a (mm)	b (inches)	c (mm)	d (mm)	e (mm)	f (mm)	g (mm)	Weight (kg)	Flow Rate (l/s)	Product Code
50	BSP	305	2	305	122	231	6	6	18.7	1.7	CPH50T/ESD
75	BSP	220	3	305	235	60	100	6	17.9	3.6	CPH75T/ESD
100	BSP	190	4	305	235	60	100	6	16.7	3.6	CPH100T/ESD

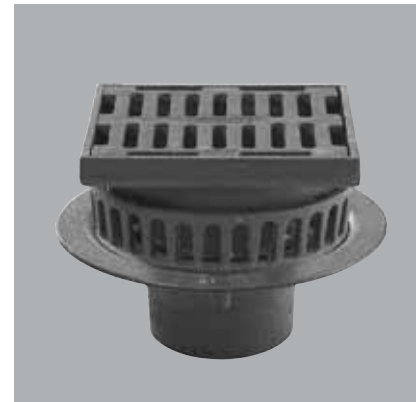
Medium Sump Horizontal Outlet Bodies with Extension Piece and Adjustable Height Square Stainless Steel Grate

Height adjustment range of the grate above the drain body flange varies from 95-120mm

Outlet Size (mm)	Connection	a (mm)	b (inches)	c (mm)	d (mm)	e (mm)	f (mm)	g (mm)	Weight (kg)	Flow Rate (l/s)	Product Code
50	BSP	305	2	305	122	231	6	6	16.8	1.7	CPH50T/ESS
75	BSP	220	3	305	235	60	100	6	16.0	3.6	CPH75T/ESS
100	BSP	190	4	305	235	60	100	6	14.8	3.6	CPH100T/ESS

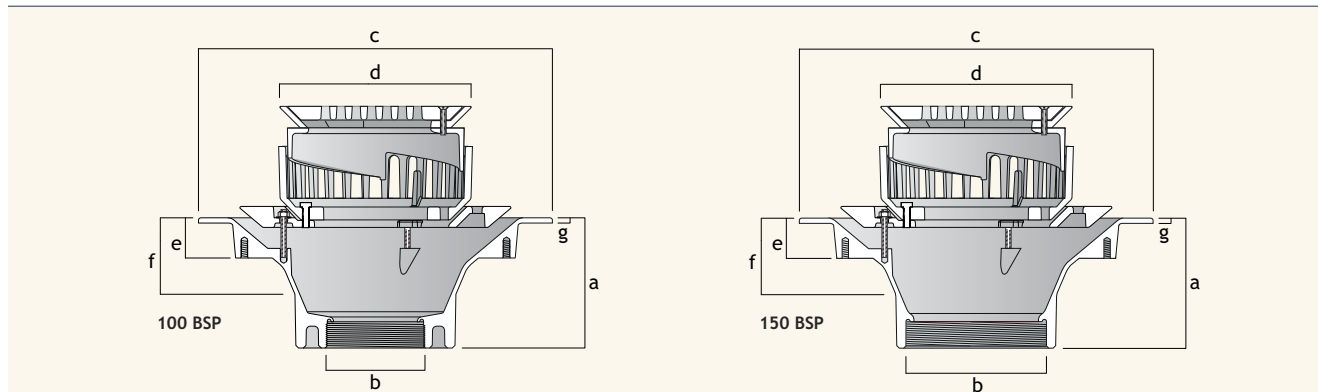
Cast Iron Floor Outlets - Plant Room Drainage Assemblies Product Tables

The Cast Iron Floor Drains include a clamping collar for a DPM or membrane to ensure a watertight seal. Available with either a BSP thread for connection to a Harmer threaded spigot adaptor and a spigot connection which can be connected direct to Harmer SML pipework to BS EN 877.



Large Sump Vertical Outlet Bodies with Extension Piece and Adjustable Height Circular Ductile Iron Grate

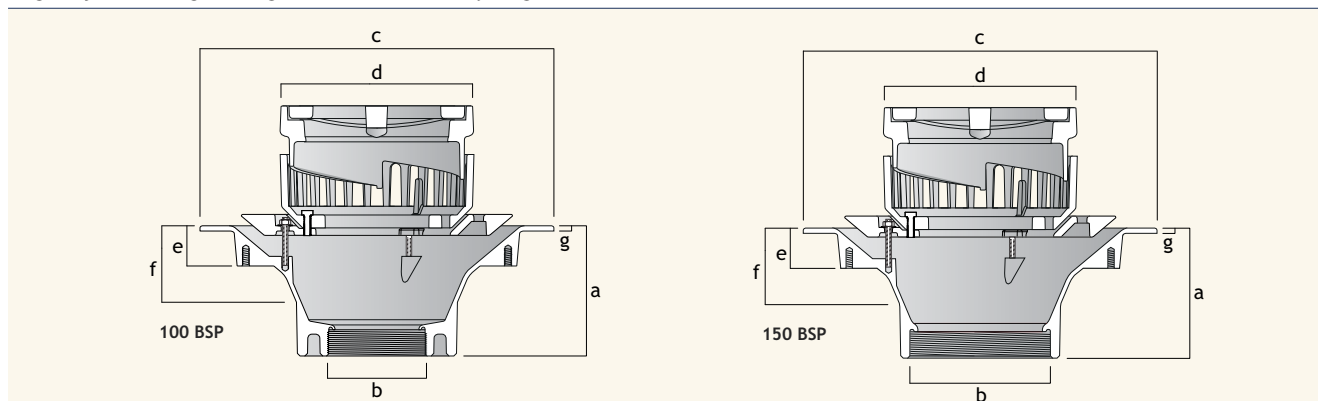
Height adjustment range of the grate above the drain body flange varies from 85-110mm



Outlet Size (mm)	Connection	a (mm)	b (inches)	c (mm)	d (mm)	e (mm)	f (mm)	g (mm)	Weight (kg)	Flow Rate (l/s)	Product Code
100	BSP	154	4	405	220	48	90	6	20.9	3.8	CPV100LT/ECD
150	BSP	154	6	405	220	48	90	6	19.2	3.8	CPV150LT/ECD

Large Sump Vertical Outlet Bodies with Extension Piece and Adjustable Height Square Ductile Iron Grate

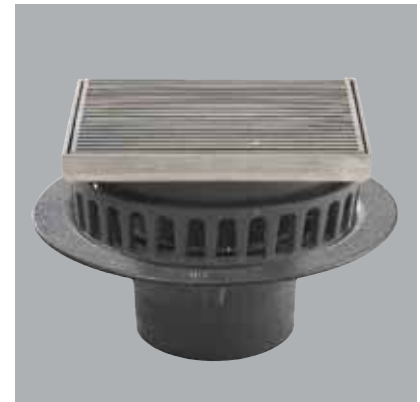
Height adjustment range of the grate above the drain body flange varies from 95-120mm



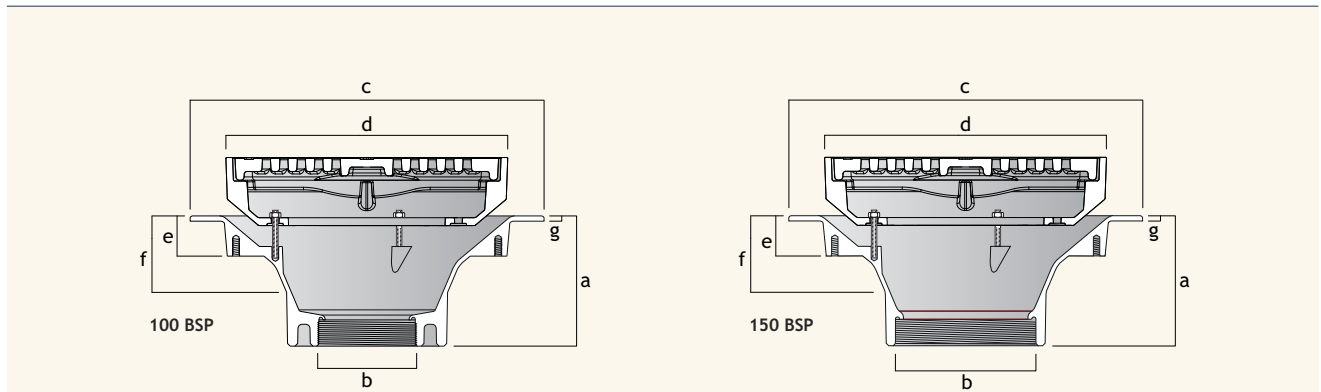
Outlet Size (mm)	Connection	a (mm)	b (inches)	c (mm)	d (mm)	e (mm)	f (mm)	g (mm)	Weight (kg)	Flow Rate (l/s)	Product Code
100	BSP	154	4	405	225	48	90	6	24.0	3.8	CPV100LT/ESD
150	BSP	154	6	405	225	48	90	6	22.3	3.8	CPV150LT/ESD

Cast Iron Floor Outlets - Plant Room Drainage Assemblies Product Tables

The Cast Iron Floor Drains include a clamping collar for a DPM or membrane to ensure a watertight seal. Available with either a BSP thread for connection to a Harmer threaded spigot adaptor and a spigot connection which can be connected direct to Harmer SML pipework to BS EN 877.



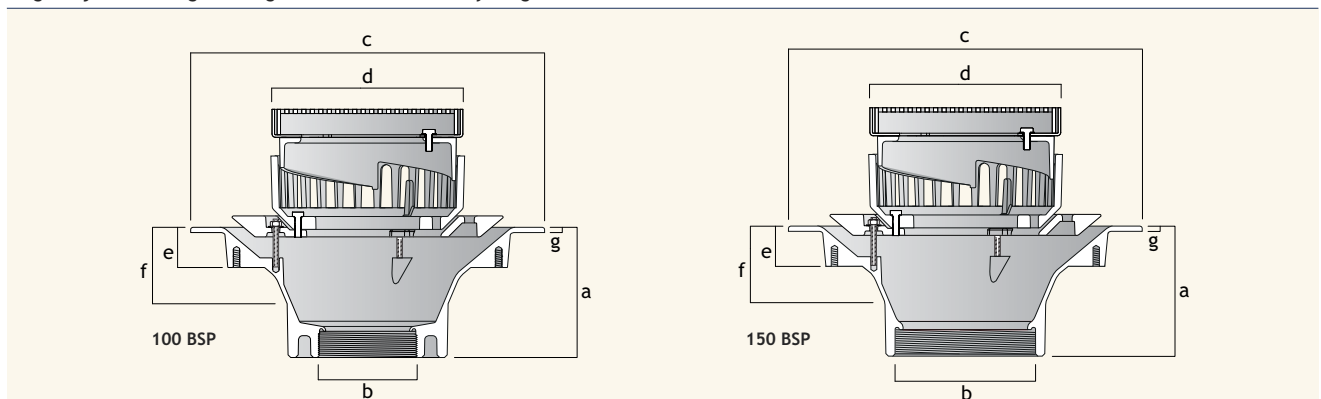
Large Sump Vertical Outlet with Large Heavy Duty Square Ductile Iron Grate



Outlet Size (mm)	Connection	a (mm)	b (inches)	c (mm)	d (mm)	e (mm)	f (mm)	g (mm)	Weight (kg)	Flow Rate (l/s)	Product Code
100	BSP	154	4	405	323	48	90	6	24.8	6.9	CPV100LT/DS
150	BSP	154	6	405	323	48	90	6	23.1	6.9	CPV150LT/DS

Large Sump Vertical Outlet Bodies with Extension Piece and Adjustable Height Square Stainless Steel Grate

Height adjustment range of the grate above the drain body flange varies from 95-120mm



Outlet Size (mm)	Connection	a (mm)	b (inches)	c (mm)	d (mm)	e (mm)	f (mm)	g (mm)	Weight (kg)	Flow Rate (l/s)	Product Code
100	BSP	154	4	405	225	48	90	6	23.2	3.8	CPV100LT/ESS
150	BSP	154	6	405	225	48	90	6	21.5	3.8	CPV150LT/ESS

Cast Iron Floor Outlets - Accessories & Connections

Threaded Spigot Adaptors

The Threaded Spigot Adaptor has been designed to facilitate the connection of Harmer Floor Cast Iron floor gullies to PVC pipework. The adaptor is suitable for connection with all types of pipe systems and presents an economic alternative to using a short length of steel gas tube to BS 1387 in the case of cast iron socketed or socketless systems.

Materials

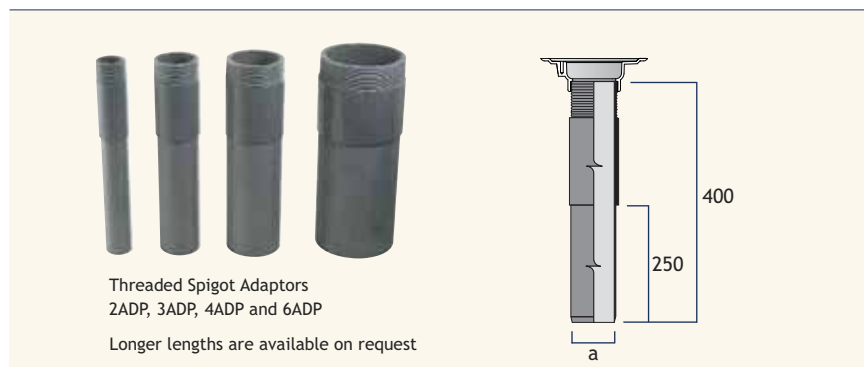
The Threaded Spigot Adaptor, made of ABS plastic, is supplied in 400mm lengths, taper-threaded externally at one end to BS EN 10226-1 and chamfered at the other end to BS 4514 spigot dimensions. Sizes are available to suit 50, 75, 100 and 150mm nominal bore pipework.

Connection to Pipework

The Threaded Spigot Adaptor is screwed into the base of the gully using silicone sealant to obtain a gas-tight seal. The spigot end of the adaptor can then be connected to the pipe socket. If necessary, the length of the spigot end of the adaptor can be reduced by cutting as required with a fine toothed saw.

The spigots of Harmer Floor Threaded Spigot Adaptors are suitable for direct connection to cast iron pipework to BS EN 877 and BS 416, HDPE pipework with appropriate Harmer couplings, PVC O-ring socketed pipe to BS 4514.

Refer to the pipe connections table below.



Nominal bore (mm)	a (mm)	Weight (kg)	Product Code
50	60	0.4	2ADP
75	83	0.6	3ADP
100	110	1.2	4ADP
150	160	2.0	6ADP

Couplings

For appropriate couplings selection refer to the pipe connections table below.



Coupling Type	Pipe Dia (mm)	Product Code
SML Ductile Iron	50	235849
SML Ductile Iron	100	235357
SML Ductile Iron	150	235358
SML Duo	50	3140/50
SML Duo	100	3140/100
SML Duo	150	3140/150
SML Adaptor	75	3151/070075

Pipe Connections

Outlet Type	Nominal Size (mm)	Outlet Dia (mm)	Pipe Material and Connection Type			
			Cast Iron EN877	Stainless Steel	HDPE	PVC
Spigot	50	60	SML Duo coupling	Post formed socket OR flexible coupling	Duo coupling	Post formed socket OR flexible coupling
	75	83	SML Adaptor coupling	"O" ring socket OR SML Duo coupling	SML Adaptor coupling	"O" ring socket OR SML Duo coupling
	100	110	SML Duo coupling	"O" ring socket OR SML Duo coupling	SML Duo coupling	"O" ring socket OR SML Duo coupling
Threaded	50	2"BSP	2ADP + SML Duo coupling	2ADP to Post formed socket OR flexible coupling	2ADP to Post formed socket OR flexible coupling	2ADP to Post formed socket OR flexible coupling
	75	3"BSP	3ADP + SML Adapter coupling	3ADP to "O" ring socket OR SML Duo coupling	3ADP + SML Adaptor coupling	3ADP to "O" ring socket OR SML Duo coupling
	100	4"BSP	4ADP + SML Duo coupling	4ADP to "O" ring socket OR SML Duo coupling	4ADP + SML Duo coupling	4ADP to "O" ring socket OR SML Duo coupling
	150	6"BSP	6ADP + SML Duo coupling	6ADP to P "O" ring socket OR SML Duo coupling	6ADP + SML Duo coupling	6ADP to "O" ring socket OR SML Duo coupling

Cast Iron Floor Outlets - Accessories & Connections

Fitting the Threaded Spigot Adaptor

Materials

- A cast aluminium body with female parallel threaded boss
- A 400mm long taper male threaded pipe sized for Standard BSP onward connection
- PTFE tape or silicone sealant

Preparation

- Wear protective (latex) gloves to avoid risk of injury or contamination during materials handling
- Process will require pipe chains for tightening the adaptor into the outlet
- Degreasing agent and fine bristle brush
- Paper towels (this last relates to Method 2)

Connecting Adapter - Method 1

Using PTFE tape:

1. Inspect all threads and ensure they are free of dirt, grease and foreign matter.
2. Apply sufficient PTFE tape to the taper male threaded end of the adapter. This requires care as too much tape will limit the amount of travel within the parallel thread of the outlet and too little may prevent an effective seal.
3. Securely tighten the adapter into the outlet, using chains or similar equipment.

Connecting Adapter - Method 2

Using silicone sealant (DOW CORNING 791 recommended):

1. Inspect all threads and ensure they are free of dirt and foreign matter.
2. Allow for ventilation and degrease the threads of the outlet using a degreasing agent and fine brush.
3. Using paper towels ensure that threads are dry.
4. Apply a liberal coating of silicone sealant to the threads of the outlet and adapter and immediately tighten using chains or similar equipment.
5. A surplus of sealant will squeeze out indicating that all the thread void areas have filled.
6. Clean up with paper towels and dispose of appropriately.
7. Follow guidance cure advice on silicone product before subjecting outlet to water test.

For method 1 and 2 it is recommended that a **Standing Water Test** is undertaken before installation.

Harmer Cast Iron Pipe Adaptors

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



Threaded Spigot Adaptor type 6ADP (See table opposite)

Threaded Spigot Adaptor type 2ADP (See table opposite)



Ductile Iron Coupling (See couplings table opposite)



Cast Iron Assembly



HDPE Assembly

Cast Iron Floor Outlets - NBS Specification & General Specification

A typical NBS Specification for Harmer Cast Iron Floor Outlets. A full range of NBS specifications and floor drainage calculators are available via the Harmer online NBS Specification Builder at www.harmerdrainage.co.uk. For project specific specification advice, contact Harmer Technical Services.

NBSPlus

NBS Specification

R11 Above Ground Foul Drainage Systems

To be read with Preliminaries/General Conditions.

GENERAL

- 115 ABOVE GROUND FOUL DRAINAGE SYSTEMS**
- Sanitary and floor drainage outlets: As per detail sections below
 - Waste pipework: As per detail sections below
 - Discharge stack and branch pipework: As per detail sections below
 - Separate ventilating pipework: As per detail sections below
 - Accessories: As per detail sections below
 - Disposal: As per detail sections below

SYSTEM PERFORMANCE

- 210 DESIGN**
- Complete the design of the above ground foul drainage system
 - Standard: To BS EN 12056-1:2000 and BS EN 12056-2:2000, and in accordance with BS EN 12056-2:2000, National Annexes NA-NG
 - Proposals: Submit drawings, technical information, calculations and manufacture's literature
- 220 COLLECTION AND DISTRIBUTION OF FOUL WATER**
- General: Complete, and without leakage or noise nuisance
- 230 DESIGN PARAMETERS - GENERAL**
- Quick, quiet and complete, self-cleansing in normal use, without blockage, cross-flow, back-fall, leakage, odours, noise nuisance or risk to health
 - Pressure fluctuations in pipework (maximum): ± 38 mm water gauge
 - Water seal retained in traps (minimum): 25mm

PRODUCTS

- 315 HARMER FLOOR DRAINAGE**
- Floor Finish: Sheet Vinyl/Tile/Resin/Concrete
 Manufacturer: Alumasc Exterior Building Products Ltd,
 White House Works, Bold Road, Sutton, St Helens, Merseyside WA9 4JG
 Tel: 01744 648400, Fax: 01744 648401.
 Email: harmer@alumasc-exteriors.co.uk
- Reference: Harmer Cast Iron Floor Drain
- Outlet Type: Vertical/Horizontal
 Spigot/BSP Thread
 Trapped/Un-trapped
 Shallow/Medium/Deep Sump
- Grate/Bezel Assembly: 150/200mm Dia
 150 x 150/200 x 200mm
 Trapped/Un-trapped
 Vinyl Clamp
 110mm PVC Throat/4" NPSM Threaded/100mm Direct Fix
- Grate Type: Plain Cap/Star/Concentric Ring/Compact Ring/Anti-Ligature/
 Solid Plate/Square/Quattro
- Grate Material: Machined Nickel Bronze/Satin Stainless Steel/Sherardized Cast Iron
- Product Code: Refer to tables
- Accessories: NPSM Extension Piece



Create Harmer Drainage NBS specifications by selecting the required product range, profile, size and finish by visiting: www.harmerdrainage.co.uk

General Specification Notes

PRODUCTS

315 HARMER FLOOR DRAINAGE

Floor Finish: Tile

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

Tel: 01744 648400, Fax: 01744 648401

Email: harmer@alumasc-exteriors.co.uk

Reference: Harmer Cast Iron Floor Drain

Outlet Type: Vertical BSP

Trapped

Medium Sump

Grate Bezel Assembly: 150mmx150mm

110mm Dia PVC Throat

Grate Type: Compact Ring

Grate Material: Machined Nickel Bronze

Product Code: CM1VT100 + TR15/NB/B/T

Accessories: NPSM Extension Piece

Cast Iron Floor Outlets - Materials Care, Maintenance, Installation & Specifying/Ordering

Materials

All Harmer cast iron floor gullies are cast to material grade EN-GJL-200 to BS EN 1561, painted internally and externally with a dark grey 2-part epoxy coating as in compliance to Class 1 fire classification BS 476:Part 7: 1997, Surface spread of flame. Smoke and Toxicity test to Part 2, Annex 1 & Annex 2 of fire test procedure code, IMO Resolution MSC61(67).

Ductile iron components are cast to material grade EN-GJS-450-10 to BS EN 1536 with zinc anti-corrosion coating applied by sherardizing.

Stainless Steel grates and bezels are cast to material Grade 304 as standard with satin finish which is suitable for most applications. Material Grade 316 for more harsh environments eg: swimming pools is available on request.

Nickel bronze grates and bezels are cast to copper alloy material Grade C99700. These are provided to machined finish for a polished effect.

Maintenance

The high quality grates and bezels are maintenance free but should be inspected periodically and cleaned 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.

To clean Stainless Steel grates, use only soapy water and wipe dry. Under no circumstances use metal scouring pads, metal scrapers or wire wool since this will contaminate surfaces leaving rust spots.

Due to the nature of Nickel Bronze, periodic cleaning is required to prevent tarnishing. Use soapy water and wipe dry.

Periodic Use

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 standard grate.

Security

Generally, grates are secured with Phillips Pozidrive screws but special security fixing options are available.

Inverted Trap

Should it be necessary to access the drain for maintenance or rodding purposes, the trap must first be removed.

Equipment required:

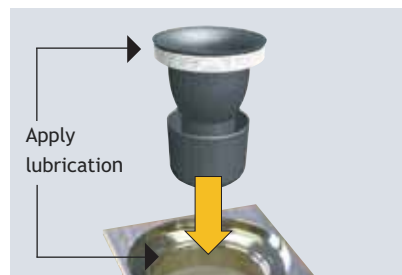
- Pozidrive screwdriver
- Latex rubber gloves
- Bucket of clean water
- Sponge
- Household disinfectant

Procedure:

- Put on protective latex gloves
- Remove grate screws
- Dry all surfaces
- Remove black funnel trap using handle inside unit

Refitting trap:

- Apply silicone lubricant to seal rim of funnel
- Push fit the trap into the bezel throat
- Position grate and secure with screws
- Reprime the trap with clean water
- Dispose of dirty water



Installation Procedure

1. Offer drain body to the required position.
2. Align waste pipe and secure, whilst maintaining the rim of the floor drain is set to the required finished slab level.
3. Lay concrete ground slab.
4. Lay DPM. Cut hole in membrane and clamp firmly to the floor drain with bolts as provided.
5. Lay insulation if required.
6. Rotate threaded bezel into threaded clamp to the required FFL height.
7. Install funnel trap inside bezel if required and cover with grating.
8. Lay screed to falls.
9. Lay floor tiles or vinyl depending on floor finished required.

Specifying/Ordering

There are 3 bezel connections available as follows:

/4

4" NPSM
(Cast Iron Drainage)

/110

110mm dia direct fix
(No gully applications)

/B

110mm dia pvc throat
(For O-ring clamp option)



The standard default for cast iron body is "/4".

Example 1:

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.

Body type/material: Untrapped Medium Sump with side inlets manufactured from Cast Iron ref: CM1VT100/A.

Grate finish/material: Satin Stainless compact ring complete with trap assembly ref: VR20/SS/4/T.

Example 2:

Floor Drains in Changing Rooms

Item: Harmer Floor Drains.

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

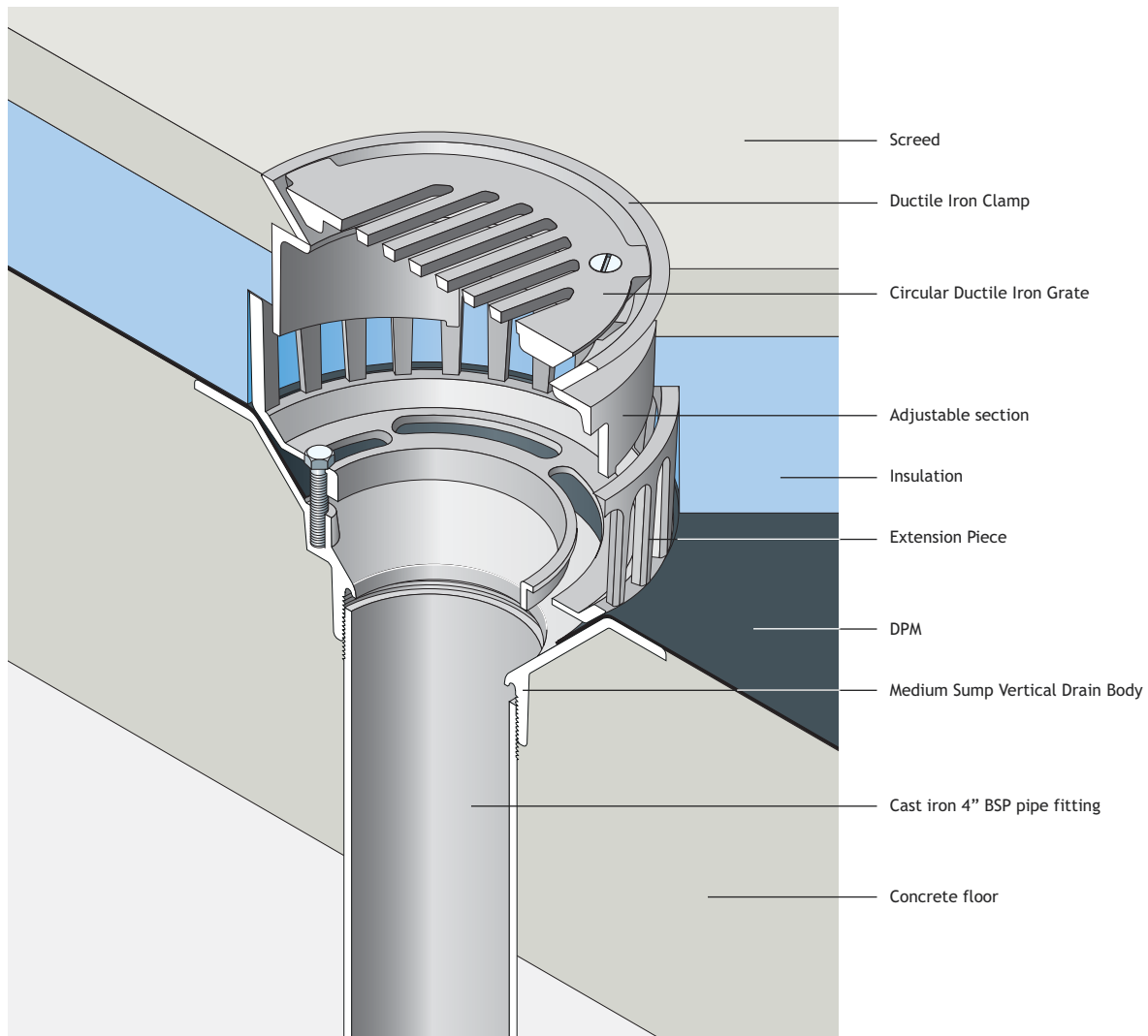
Manufacturer: Alumasc Exterior Building Products Ltd, White House Works, Bold Road, Sutton, St Helens, Merseyside WA9 4JG.

Body type/material: P-trapped Horizontal thread without inlets manufactured from Cast Iron ref: CTH100.

Grate finish/material: Machined Nickel Bronze Quattro grate and bezel assembly ref: SH15/NB/4.

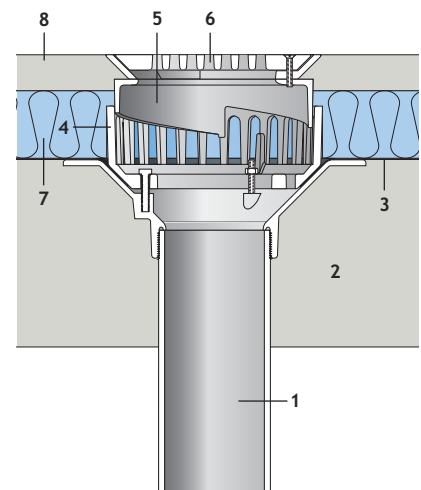
Cast Iron Floor Outlets - Application Details

Medium Sump Vertical Drain Body with Extension Piece and Adjustable Height Circular Ductile Iron Grate



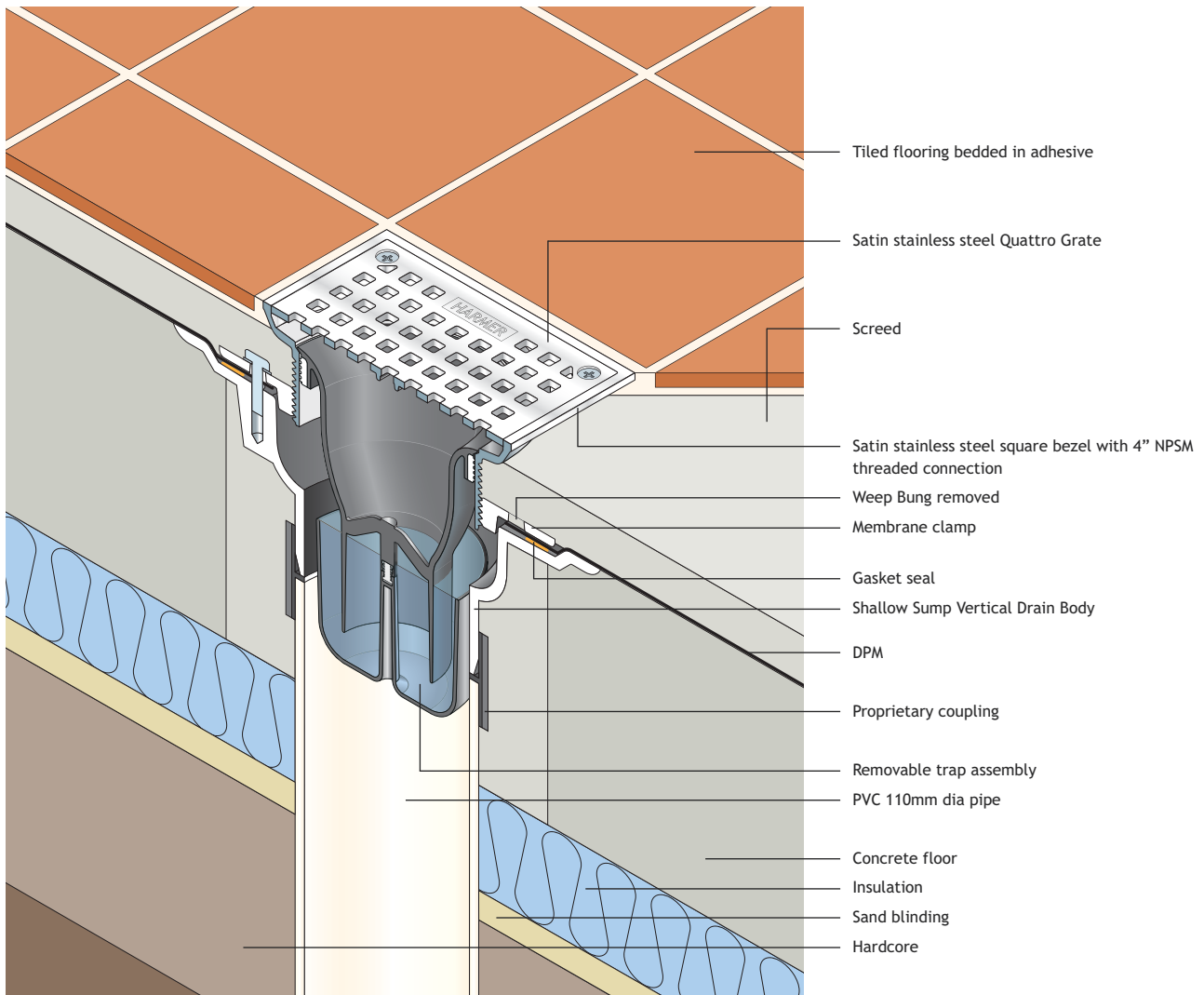
Sitework

1. Assemble BSP pipe/adaptor to drain body.
2. Temporarily support drain and cast into concrete slab at correct level.
3. Lay DPM and dress into drain.
4. Position extension piece and secure into place to adequately clamp down DPM.
5. Align adjustable section.
6. Fit clamp and grate.
7. Lay insulation.
8. Lay screed to falls.



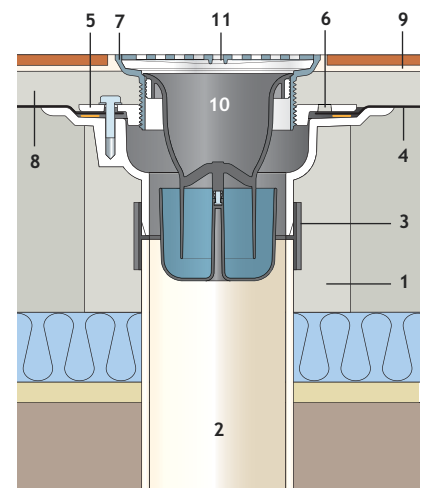
Cast Iron Floor Outlets - Application Details

Shallow Sump Vertical Drain Body with Quattro Grate and Bezel



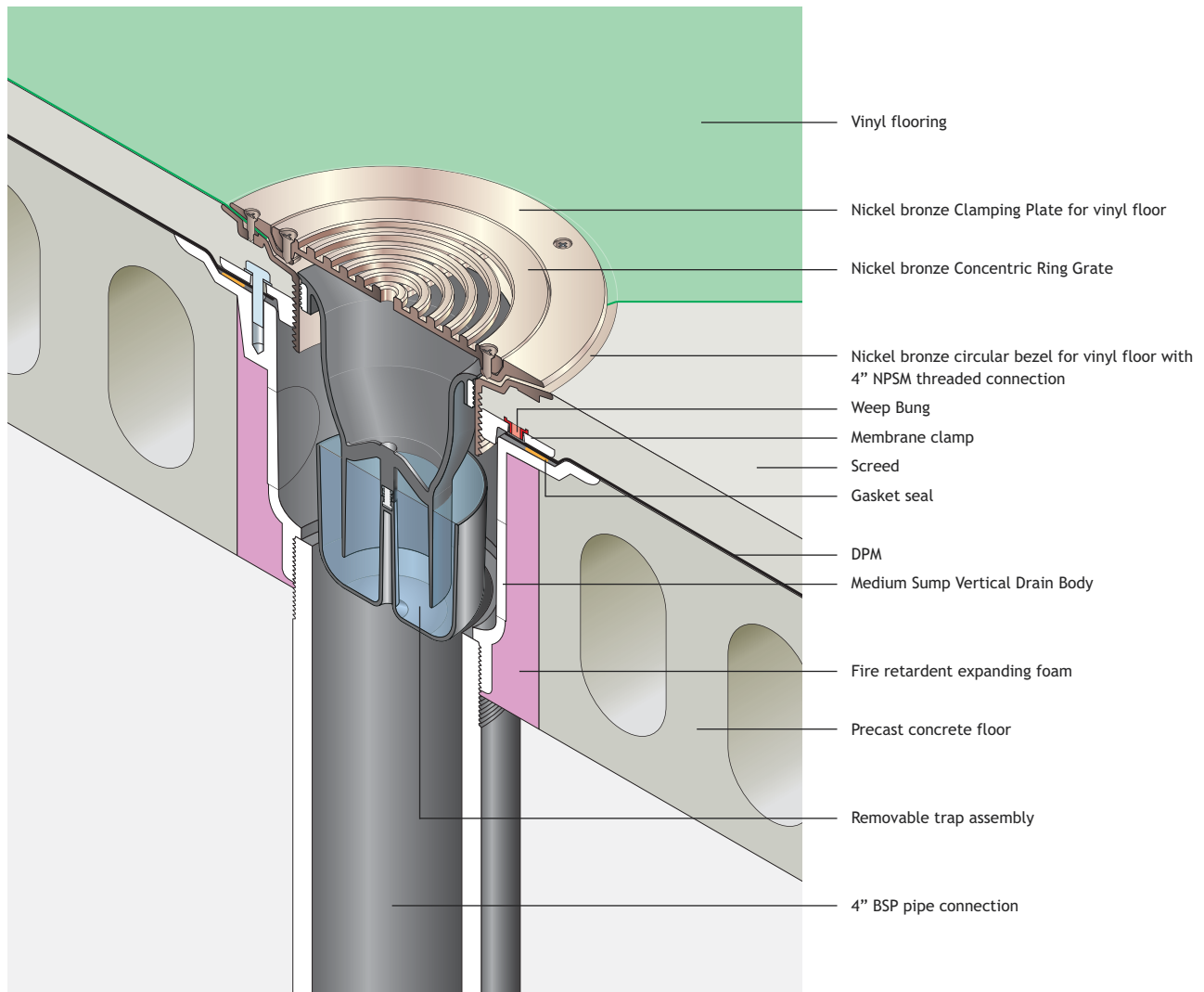
Sitework

1. Form hole in concrete floor to receive drain body.
2. Position drain pipe to align with drain body.
3. Join together with proprietary coupling.
4. Lay waterproof tanking system.
5. Fix clamp to secure tanking over gasket seal.
6. Remove weep bung.
7. Fit threaded bezel to required height of FFL.
8. Lay screed to falls.
9. Apply adhesive to lay tiles.
10. Connect funnel trap inside bezel.
11. Secure grate



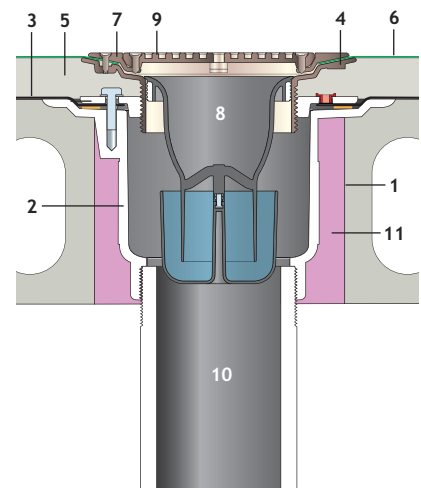
Cast Iron Floor Outlets - Application Details

Medium Sump Vertical Drain Body with Concentric Ring Grate and Bezel



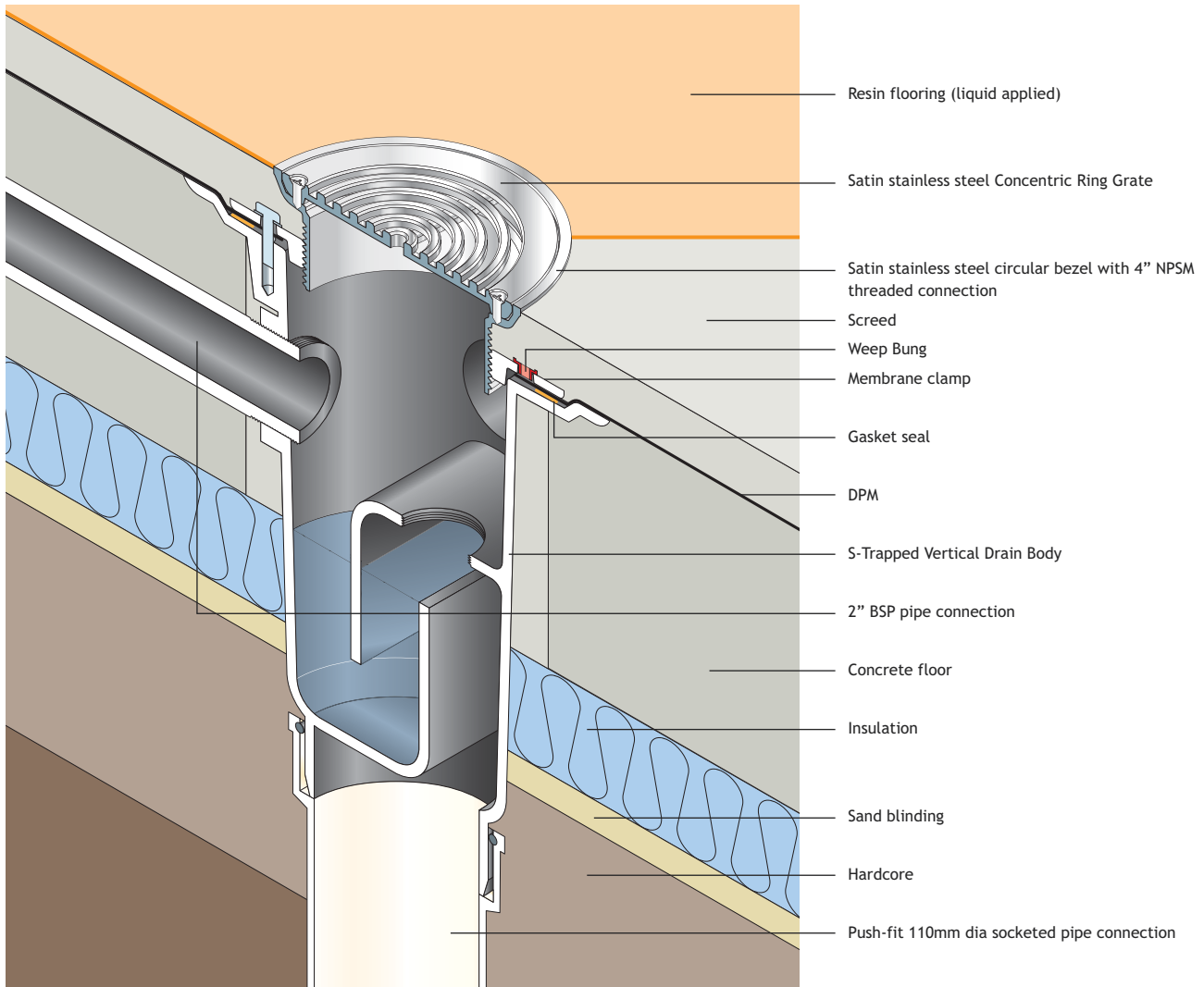
Sitework

1. Form hole in precast concrete floor to receive drain body.
2. Position drain body in floor.
3. Lay the DPM. Cut hole in the membrane and clamp firmly over the gasket seal on the drain body with bolts as provided.
4. Connect the threaded bezel to the clamp and adjust the height to the required FFL.
5. Lay screed to falls.
6. Apply vinyl sheet flooring and dress inside the bezel.
7. Secure vinyl to bezel using clamp plate.
8. Connect funnel trap inside bezel.
9. Secure grating.
10. Connect BSP pipe.
11. Apply fire retardent expanding foam to fill void in floor at drain position.



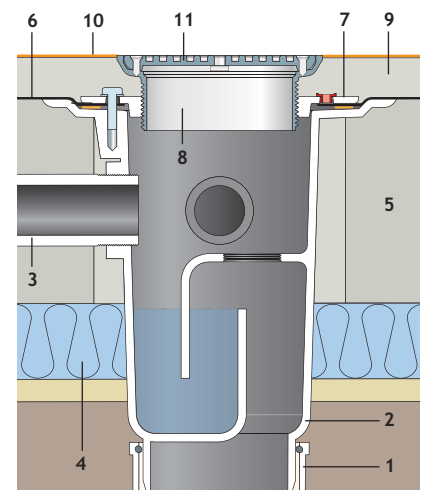
Cast Iron Floor Outlets - Application Details

S-Trapped Vertical Drain Body with Concentric Ring Grate and Bezel



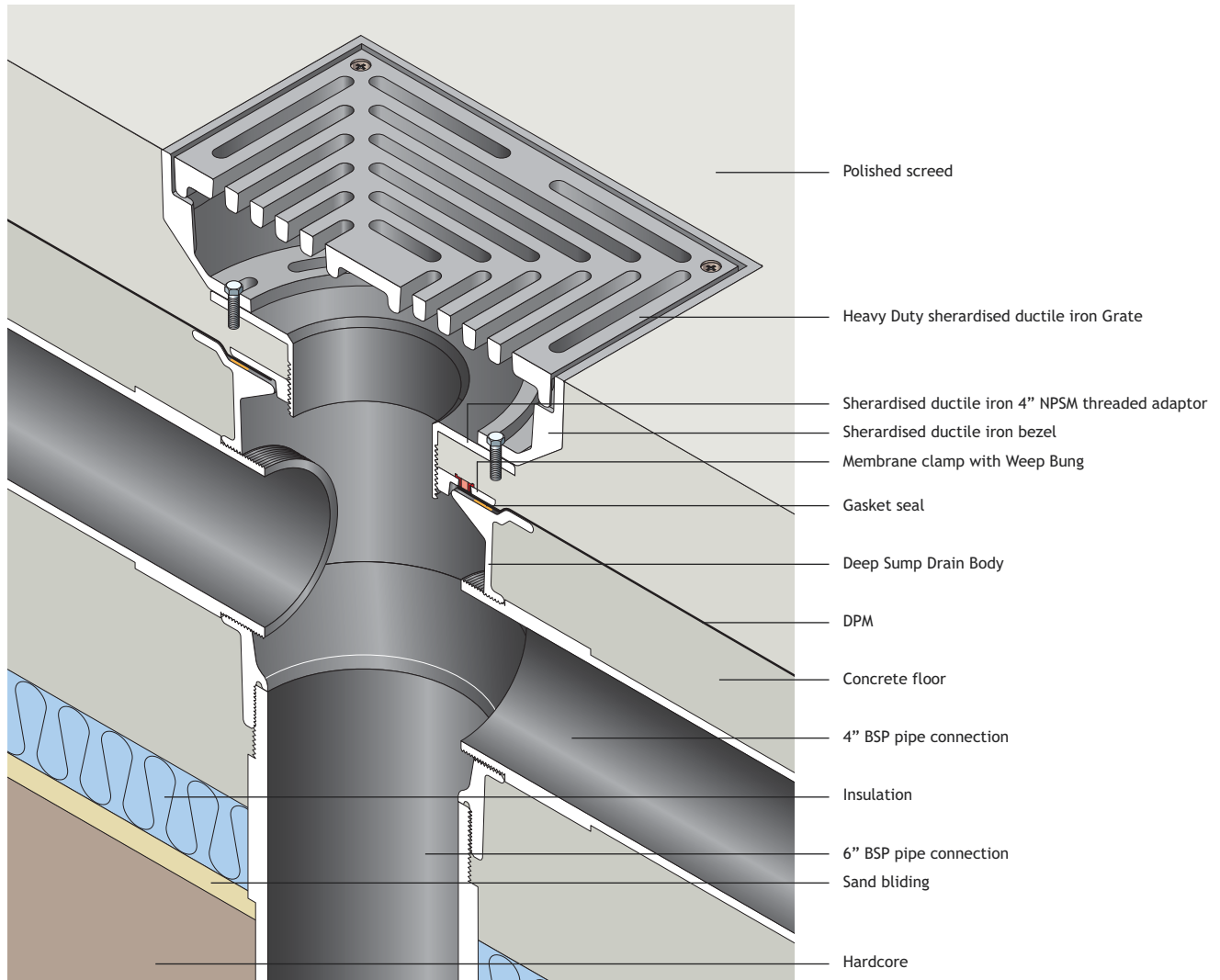
Sitework

1. Temporarily support socketed pipe at adequate level for fitting of drain.
2. Push-fit drain body into place.
3. Add additional waste pipe connections using the 2" BSP inlets on drain body.
4. Lay sand blinding and insulation over hardcore.
5. Pour concrete to cast drain in position.
6. Lay DPM and dress into drain.
7. Secure gasket and clamp leaving weep bung in place.
8. Fit threaded bezel to required height of FFL.
9. Lay screed to falls.
10. Pour liquid applied resin on floor up to bezel frame edge.
11. Secure grate.



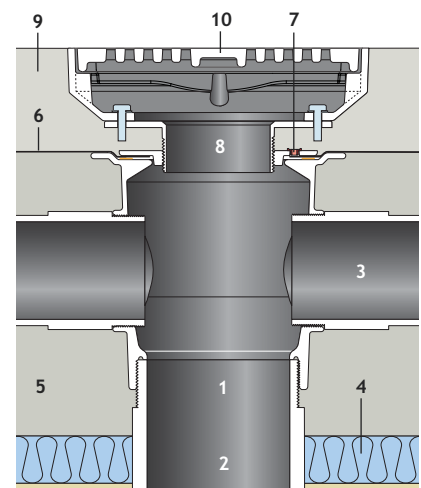
Cast Iron Floor Outlets - Application Details

Deep Sump Vertical Drain Body with Sherardised Ductile Iron Heavy Duty Grate and Bezel



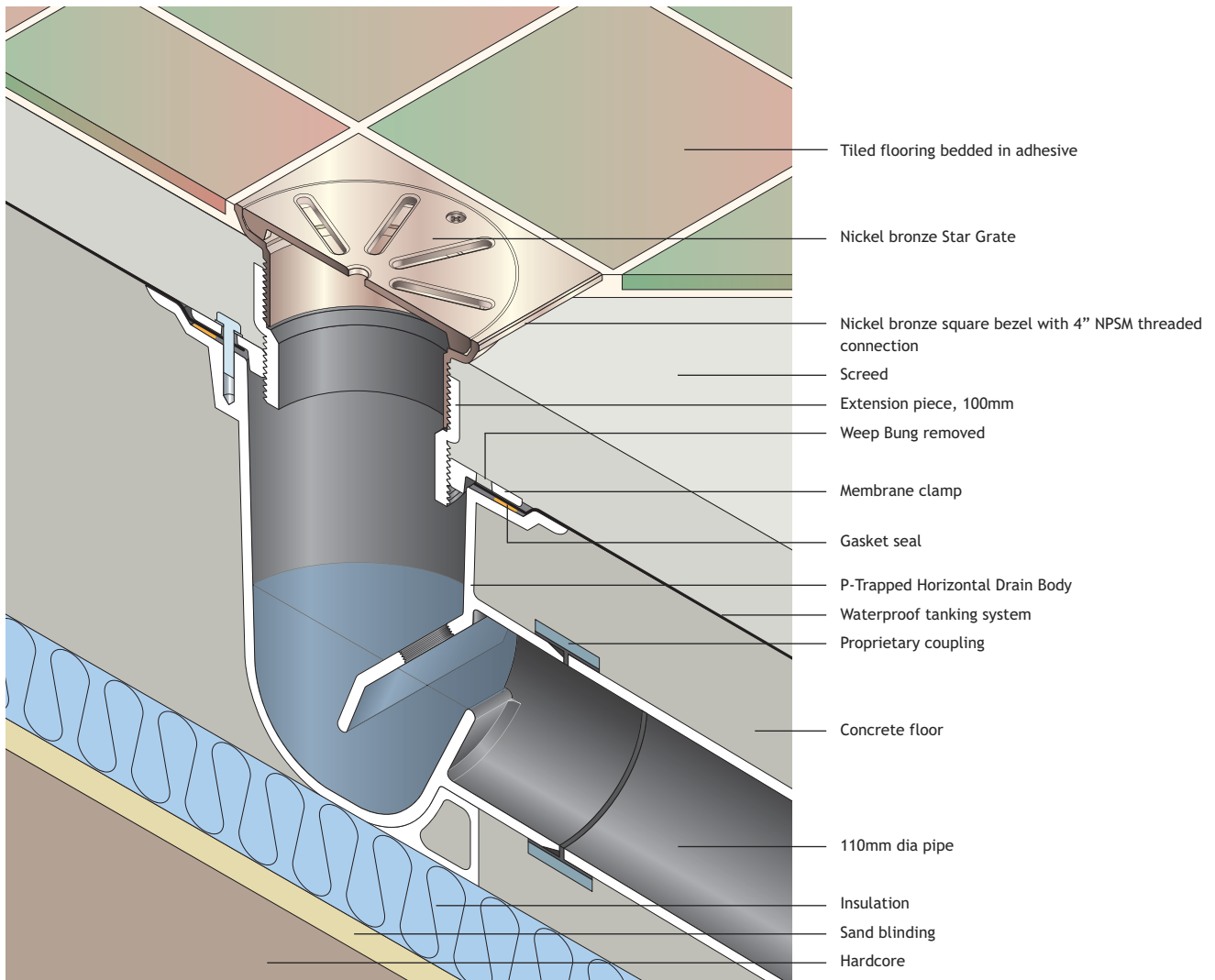
Sitework

1. Assemble BSP pipe/adaptor to drain body.
2. Temporarily support drain/pipe assembly to correct height.
3. Fit additional waste pipe connections using the 4" BSP inlets on drain body.
4. Lay sand blinding and insulation over hardcore.
5. Pour concrete to cast drain in position.
6. Lay DPM and dress into drain.
7. Secure gasket and clamp, leaving weep bung intact.
8. Fit ductile iron frame with threaded 4" adaptor to the clamp at the required height of FFL.
9. Lay polished screed to falls.
10. Place 323 x 323mm square ductile iron grate into frame.



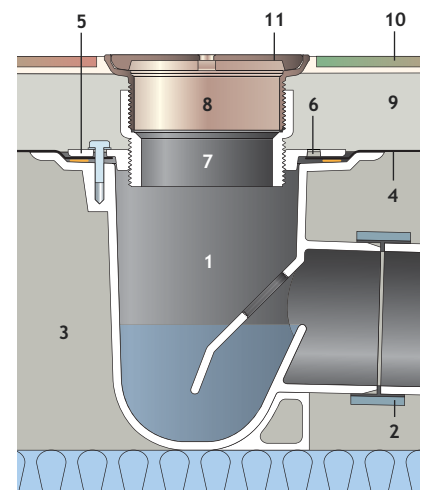
Cast Iron Floor Outlets - Application Details

P-Trapped Horizontal Drain Body with Star Grate and Bezel



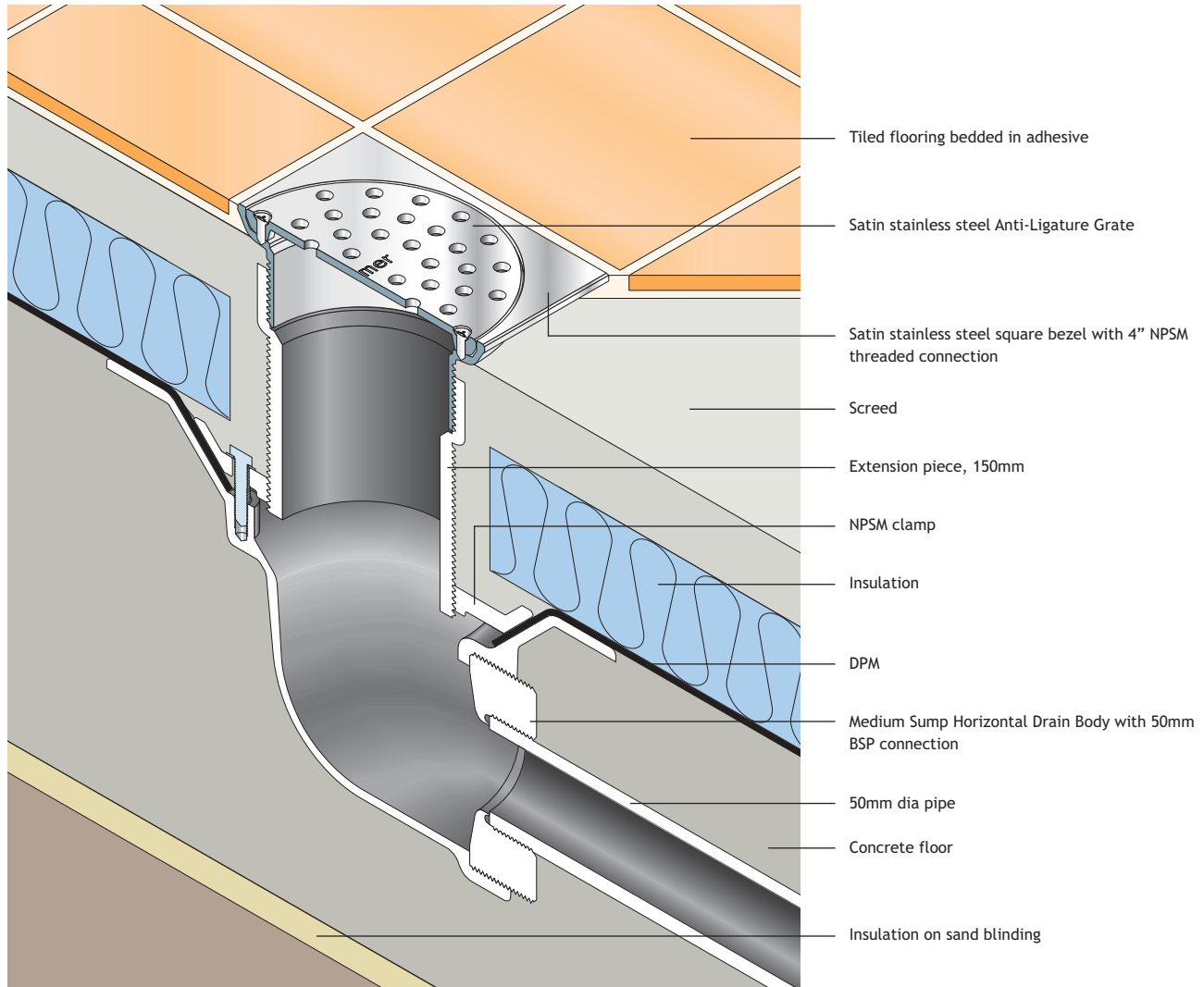
Sitework

1. Position drain body in appropriate location supported on insulation.
2. Connect 110mm diameter pipe with proprietary coupling.
3. Pour concrete mix to cast drain into floor.
4. Lay waterproof tanking system and dress into drain.
5. Fix clamp to secure tanking over gasket seal.
6. Remove weep bung.
7. Install cast iron extension piece and set to required level.
8. Fit threaded bezel to the required FFL.
9. Lay screed to falls.
10. Apply adhesive and fit tiles.
11. Secure grate.



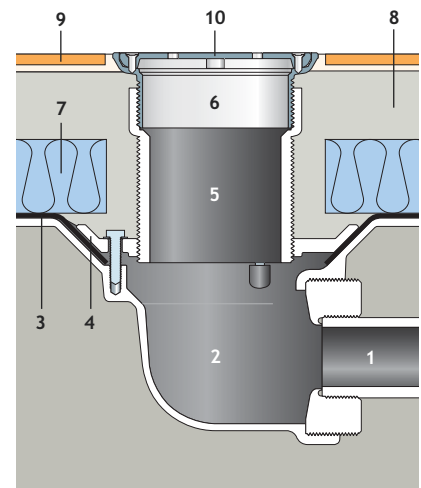
Cast Iron Floor Outlets - Application Details

Medium Sump Horizontal Drain Body with Anti-Ligature Grate and Bezel



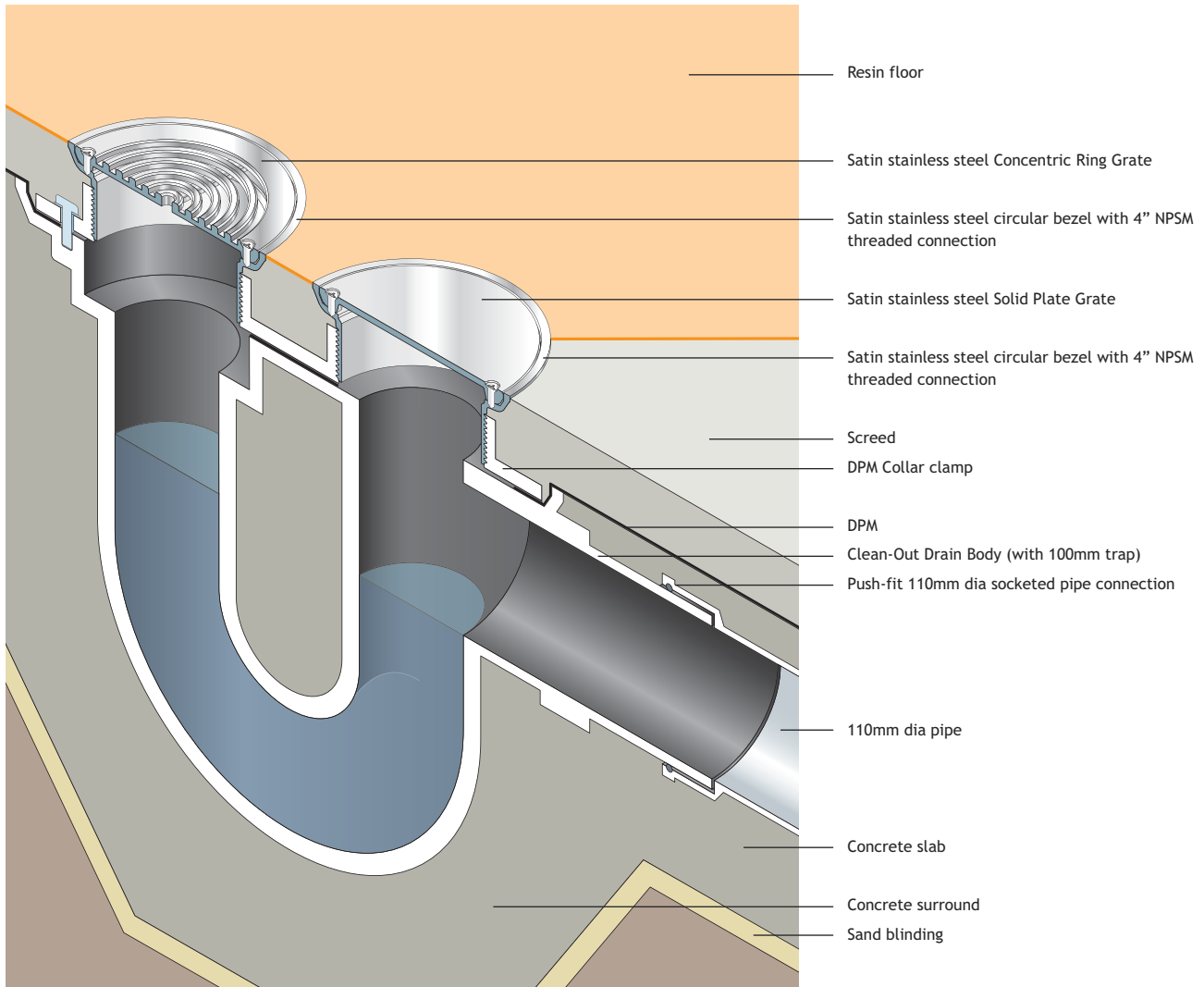
Sitework

1. Assemble BSP pipe/adaptor to drain body.
2. Temporarily support drain and cast into concrete slab at appropriate level.
3. Lay DPM and dress into drain.
4. Fix clamping plate.
5. Install cast iron extension piece for increased height flexibility.
6. Fix threaded bezel to required height of FFL.
7. Lay insulation over floor.
8. Lay screed to falls.
9. Apply adhesive and fit tiles.
10. Secure grate.



Cast Iron Floor Outlets - Application Details

Clean-Out Drain Body with Concentric Ring and Solid Plate Grates and Bezels



Sitework

1. Temporarily support drain body to the appropriate level.
2. Connect socketed pipework.
3. Cast drain into concrete slab/surround.
4. Lay DPM and dress over top of drain body.
5. Fix securing clamp.
6. Install two threaded bezels to the required FFL height.
7. Lay screed to falls.
8. Apply resin floor finish.
9. Secure draining grate and solid plate.

