

# ACO Building Drainage Products

Roof and Floor Drains



## ACO WEXEL

*Technical Handbook and Product Catalogue*



**Stainless steel push-fit floor drains**

**Cast iron floor drains with stainless steel grates**

**Cast iron roof drains**



## The ACO Group

Founded in 1946, the ACO Group manufactures products for the building and construction industry.

ACO was established in Australia in 1993 and is Australasia's leading manufacturer of drainage products.

ACO has extensive experience in manufacturing and supplying a diverse range of drainage systems throughout Australia and overseas.

## ACO Wexel

A range of cast iron roof and floor drains for use in both internal and external areas.

ACO's floor and roof drains have WaterMark approval. This is granted to products that comply to AS 5200.000 or AS 3495 and certified in accordance with ISO/IEC Guide 67.2004, System 1b.



For installations requiring a full stainless steel body and grate, refer to ACO Gully catalogue.

### Areas of application

- Commercial kitchens
- Food processing areas
- Supermarkets
- Paved areas
- Suspended slabs
- Hospitals
- Medical centres
- Commercial buildings
- Multistory car parks



ACO Polycrete Pty Ltd, Head Office at Emu Plains NSW Australia

## ACO. The future of drainage.

### System Chain

ACO is a global leader in water management, with products to collect, clean, hold and release water; addressing all phases of the water cycle and supporting water sensitive urban design.

ACO Wexel focuses on products that address the 'collect' phase of the water cycle.



### Service Chain

To support this extensive product range, ACO provides full support from design conception to final installation.

Customer services include in-house project specific design services, field support including installation advice. Product training and up to date professional education seminars provide the design community with the latest product information.



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## Introduction

ACO Wexel is a range of cast iron roof and floor drains to suit almost any application, from pedestrian areas to flat roofs on any commercial or industrial project.

Stainless steel floor grates are available both with and without cast iron bodies, for either a push-fit or deep body connection.

There are a number of options of iron bodies available. Adjustable height tops accommodate various floor and roof levels. Clamp rings and puddle flanges accommodate different waterproof membranes. Bucket traps and other variants are available.









### Range includes

1. Floor drains with a choice of round or square grates to suit all floor finishes, including vinyl sheet
2. Roof drains with flat or domed grates
3. Fixed or adjustable height drains
4. Drains for DN50, DN100, DN150 horizontal and vertical pipe connection
5. Full range of accessories

### The benefits

- Robust cast iron bodies
- High quality finished stainless steel floor grates
- Push-fit grates and bodies compatible with HDPE and PVC pipe
- Durable hot dipped galvanised iron roof grates

## Product selector

<p><b>1. Floor drains – push-fit</b></p> <p>Push-in floor drains with 'O' ring seals, to provide a quick and watertight connection for both PVC and HDPE pipe. Complete with finished stainless steel grates.</p>	 <p>Round grates</p>		 <p>Square grates</p>			
<b>Outlet size (mm)</b>	50	100	50	100		
<b>Load class</b>	L15	up to L15	L15	L15		
<b>Membrane provision</b>	X	X	X	X		
<b>Fixed (secondary) strainer</b>	X	X	X	X		
<b>Removable (primary) strainer</b>	✓	✓	✓	✓		
<b>Height adjustable</b>	X	X	X	X		
<b>Vinyl grate (clamp)</b>	X	✓	X	X		
<b>Heelguard grate</b>	✓	✓	✓	✓		
	Page 10		Page 11			
<p><b>2. Floor drains – full bodied</b></p> <p>A comprehensive range of adjustable height full bodied floor drains with stainless steel grates for vertical and horizontal pipe connection. A variety of sizes from compact to deep variants are available, depending on the application's requirements.</p>	 <p><b>Vertical utility floor drains</b></p> <p>Round grates      Square grates</p>		 <p><b>Vertical short floor drains</b></p> <p>Round grates      Square grates</p>			
<b>Outlet size (mm)</b>	100	100	50	100	50	100
<b>Load class</b>	up to L15	L15	L15	up to L15	L15	L15
<b>Membrane provision</b>	X	X	✓	✓	✓	✓
<b>Fixed (secondary) strainer</b>	X	X	X	X	X	X
<b>Removable (primary) strainer</b>	✓	✓	✓	✓	✓	✓
<b>Height adjustable</b>	✓	✓	✓	✓	✓	✓
<b>Vinyl grate (clamp)</b>	✓	X	X	✓	X	X
<b>Heelguard grate</b>	✓	✓	✓	✓	✓	✓
	Page 14	Page 15	Page 16		Page 17	
<p><b>3. Roof drains</b></p> <p>Roof drains with hot dipped galvanised iron grates for conventional run-off collection. Suitable for flat roofs, car parks and similar areas.</p>	 <p>Flat grates</p>		 <p>Domed grates</p>			
<b>Outlet size (mm)</b>	100	150	100	150		
<b>Load class</b>	up to M125	up to M125	N/A	N/A		
<b>Membrane provision</b>	✓	✓	✓	✓		
<b>Fixed (secondary) strainer</b>	X	X	X	X		
<b>Removable (primary) strainer</b>	X	X	X	X		
<b>Height adjustable</b>	✓	✓	✓	✓		
<b>Vinyl grate (clamp)</b>	X	X	X	X		
<b>Heelguard grate</b>	X	X	X	X		
	Page 26		Page 27			
<p><b>4. Other products and accessories</b></p>	 <p><b>Planter drain outlets</b></p>		 <p><b>Clean-outs</b></p>			
<b>Outlet size (mm)</b>	100		100			
<b>Load class</b>	H1.5		L15			
<b>Membrane provision</b>	✓		X			
<b>Fixed (secondary) strainer</b>	X		X			
<b>Removable (primary) strainer</b>	X		-			
<b>Height adjustable</b>	✓		X			
<b>Vinyl grate (clamp)</b>	X		✓			
<b>Heelguard grate</b>	X		-			
	Page 29		Page 30			



### Vertical deep floor drains

Round grates      Square grates

100 up to L15	100 L15
✓	✓
✓	✓
✓	✓
✓	✓
✓	✓
✓	✗
✓	✓

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### Vertical puddle flange floor drains

Round grates      Square grates

100 up to L15	150 up to L15	100 L15	150 L15
✓	✓	✓	✓
✗	✗	✗	✗
✓	✓	✓	✓
✓	✓	✓	✓
✓	✓	✓	✓
✓	✓	✗	✗
✓	✓	✓	✓

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### Horizontal floor drains

Round grates      Square grates

50 L15	100 up to L15	50 L15	100 L15
✓	✓	✓	✓
✗	✗	✗	✗
✓	✓	✓	✓
✓	✓	✓	✓
✓	✓	✓	✓
✗	✓	✗	✗
✓	✓	✓	✓

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Page 23



### Strainer baskets

100	150
-	-
-	-
✓	✓
✓	✓
-	-
-	-
-	-

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## Load class

There is no Australian Standard that governs the performance of floor gullies. ACO believes that EN 1253, specifically written to regulate these types of products, is the most appropriate International Standard.

### EN 1253 – Gullies for buildings

#### 1. Scope

*'This Standard classifies gullies, gives guidance for places of installation and specifies requirements for construction, design, performance and marking of factory gullies, irrespective of material, for use in drainage systems operating under gravity including siphonic systems.'*

The table below is created to give designers, installers and users assistance in selecting the correct product.

The table is based on loadings outlined in EN 1253 and is cross referenced with AS 3996 – Access covers and grates, the most relevant Australian Standard for load classifications. ACO has gained NATA accreditation (No.15193) for its testing laboratory and can provide test reports to EN 1253.

Standards only give an objective means for comparing products. There are a number of key factors affecting a product's resistance to load and additional consideration must be given to:

#### 1. Type of traffic

Consider the weight of loads being carried, for example forklifts, trolleys and trucks.

#### 2. Wheel type

Solid tyres exert more stress through smaller contact areas than pneumatic tyres, so a heavier duty grate may be required. Note, laden trolleys can intensify the load.






#### 3. Frequency and speed of traffic

More frequent and faster traffic can intensify the load.

#### 4. Position of gully

If the product is positioned where traffic will be turning or braking, or if it is installed at the bottom of a ramp, the gully will be subjected to extreme forces.



					
<b>EN 1253 – Gullies for buildings</b>					
<b>Load Classes</b>					
<b>H1.5</b> 1.5kN	<b>K3</b> 3kN	<b>L15</b> 15kN	<b>R50</b> 50kN	<b>M125</b> 125kN	<b>N250</b> 250kN
Non-load bearing areas, inaccessible to all types of traffic	Pedestrian areas, change rooms, toilets and areas inaccessible to regular vehicular traffic	Light commercial and industrial areas inaccessible to solid tyres	Light commercial and industrial areas accessible to solid tyres	Commercial and industrial areas accessible to solid tyres and pallet jacks	Commercial and industrial areas subject to heavy traffic
<b>Slow moving wheel load (Pneumatic tyres)</b>					
N/A	150kg	700kg	2500kg	5000kg	8000kg
<b>Slow moving wheel load (Solid tyres)</b>					
N/A	N/A	N/A	500kg	750kg	1000kg
<b>Equivalent classification to AS 3996 – Access covers and grates</b>					
<b>Load Classes</b>					
	<b>A</b> 10kN		<b>B</b> 80kN	<b>C</b> 150kN	<b>D</b> 210kN

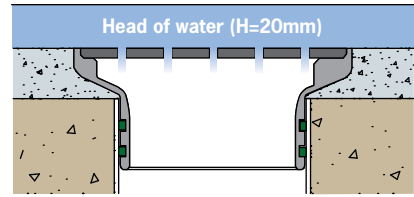
Note: For higher load classes contact ACO.









**Hydraulic data**






Water flow is restricted by the open area of grate. For the ACO Wexel range, there is no further reduction of flow from the underlying bodies. The head of water creates pressure and is also part of the calculation.

The table below shows the flow rate based on the diagram shown right.

Note that fixed or removable strainers will reduce the flow rates.



	Part No.	Intake area (mm <sup>2</sup> )	Outlet discharge 20mm head Q (L/s)	
<b>Floor drains – push-fit</b>	 Pg 10	141855	2,404	0.98
		141856	5,503	2.24
		141857	4,173	1.70
		141958	N/A	N/A
		141858	6,901	2.81
	 Pg 11	141859	2,919	1.19
		141860	7,216	2.94
		141861	13,734	5.59
<b>Vertical utility floor drains</b>	 Pg 14	141870	5,503	2.24
		141871	11,199	4.56
		141872	4,173	1.70
		141873	6,901	2.81
	 Pg 15	141874	7,216	2.94
		141875	13,734	5.59
<b>Vertical short floor drains</b>	 Pg 16	141862	2,404	0.98
		141863	5,503	2.24
		141864	11,199	4.56
		141865	4,173	1.70
		141866	6,901	2.81
	 Pg 17	141867	2,919	1.19
		141868	7,216	2.94
		141869	5,503	2.24
		<b>Vertical deep floor drains</b>	 Pg 18	141876
141877	11,199			4.56
141878	4,173			1.70
141879	6,901			2.81
 Pg 19	141880		7,216	2.94
	141881	13,734	5.59	
	141882	28,310	11.53	

	Part No.	Intake area (mm <sup>2</sup> )	Outlet discharge 20mm head Q (L/s)	
<b>Vertical puddle flange floor drains</b>	 Pg 20	141883	5,503	2.24
		141884	11,199	4.56
		141885	4,173	1.70
		141886	6,901	2.81
		141887	5,503	2.24
		141888	11,199	4.56
		141889	4,173	1.70
		141890	6,901	2.81
		141891	7,216	2.94
		141892	13,734	5.59
		141893	28,310	11.53
		141894	7,216	2.94
		141895	13,734	5.59
		141896	28,310	6.91
<b>Horizontal floor drains</b>	 Pg 22	141897	2,404	0.98
		141898	5,503	2.24
		141899	11,199	4.56
		141900	4,173	1.70
	 Pg 23	141901	6,901	2.81
		141902	2,123	0.86
		141903	7,216	2.94
		141904	13,734	5.59
<b>Roof drains</b>	 Pg 26	141905	15,180	6.18
		141906	15,858	6.46
		141907	22,255	9.06
		141908	15,180	6.18
		141909	15,858	6.46
		141910	16,971	6.91
		141911	15,180	6.18
		141912	15,858	6.46
		141913	15,180	6.18
		141914	15,858	6.46
<b>Roof drains</b>	 Pg 27	141915	36,576	Contact ACO
		141916	36,576	
		141917	36,576	
		141918	36,576	

## Floor drains – push-fit

A push-in floor drain with 'O' ring seals to provide a quick watertight connection for both PVC and HDPE pipe. Complete with finished stainless steel grates.



Finished stainless steel **Heelguard** grates for a high quality finish.

Meets ASME A112.6.3 Section 7.12 (American high heel standard) and complies with AS 3996 – Clause 3.3.5 Surface Openings in pedestrian areas.



Circular grates are ideal for use in screeded and vinyl sheet floors, a neat finish can be achieved around the circular bevel.



Square grates can be used in any application, but are ideal for use in tiled floors as they are available in common tile sizes and allow easy tile cuts for a neat finish.



Removable (primary) strainer baskets for ease of maintenance.



Choice of 'O' rings are supplied, compatible with either PVC and HDPE pipes.







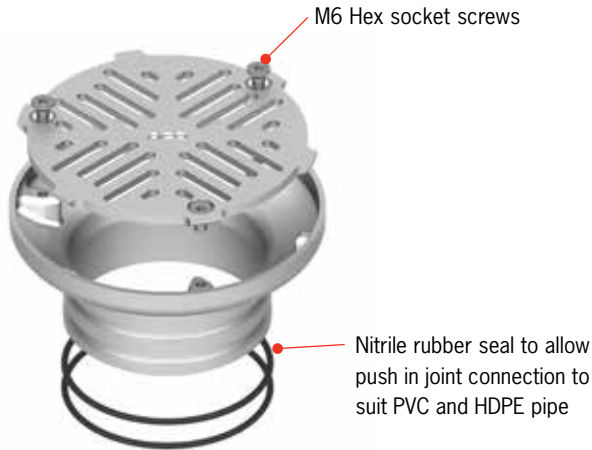
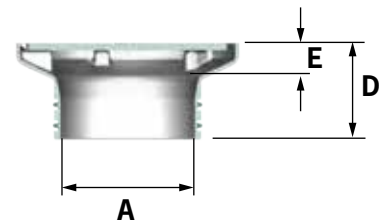
## Vertical floor drains – push-fit round grates

Push-in floor drains, complete with 'O' ring seals, to provide a fast watertight connection.

Plan view



Section view



RP1510 shown



VP1410 shown

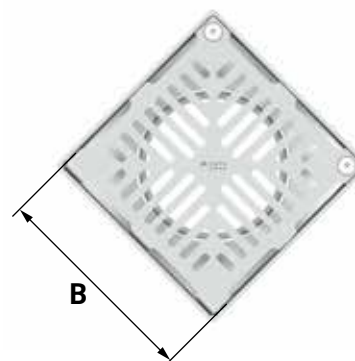
Part No.	Type	Description	Load class EN 1253	Outlet size Ø	Grate size	Overall depth	Grate height	Wgt kg
				A	B	D	E	
141855	RP1005	Push-in grates: 50mmØ outlet with 100mmØ grate	L15	50	100	50	26	0.5
141856	RP1510	Push-in grates: 100mmØ outlet with 150mmØ grate <sup>1</sup>	L15	100	150	65	27	1.2
141857	VP1410	Push-in grates: 100mmØ outlet with 140mmØ vinyl grate	L15	100	140	65	27	1.1
141858	VP1810	Push-in grates: 100mmØ outlet with 180mmØ vinyl grate <sup>1</sup>	K3	100	180	75	36	2.0
141958	VP1410S	Push-in solid top clean-out: 100mmØ outlet with 140mmØ vinyl grate	L15	100	140	65	27	1.3
142112	R1510S	Push-in solid top clean-out: 100mmØ outlet with 150mmØ grate	L15	100	150	65	27	1.4
141696	RPBT1510	Push-in grates: 100mmØ outlet with 150mmØ grate with fixed and removable strainer	L15	100	150	165	27	1.4

Notes: 1. Removable strainer basket available, Part No. 141920 to suit nominal 100mm diameter – see page 31  
2. All dimensions are in mm

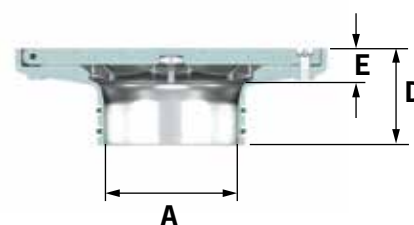
### Vertical floor drains – push-fit square grates

Push-in floor drains, complete with 'O' ring seals, to provide a fast watertight connection.

Plan view

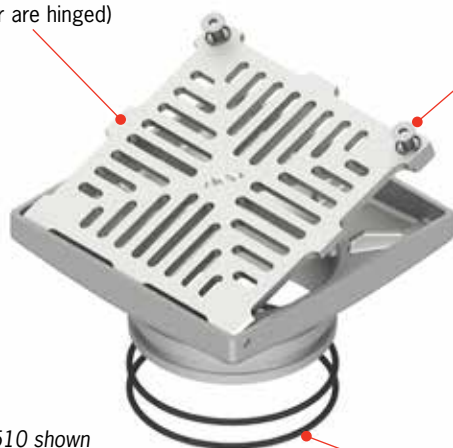


Section view



Stainless steel lockable Heelguard grate assembly (grates 150x150mm and larger are hinged)

M6 Hex socket screws



SP1510 shown

Nitrile rubber seal to allow push in joint connection to suit PVC and HDPE pipe

Part No.	Type	Description	Load class EN 1253	Outlet size Ø A	Grate size B	Overall depth D	Grate height E	Wgt kg
141859	SP1005	Push-in grates: 50mmØ outlet with 100x100mm grate	L15	50	100	50	26	0.7
141860	SP1510	Push-in grates: 100mmØ outlet with 150x150mm grate <sup>1</sup>	L15	100	150	65	30	1.6
141861	SP2010	Push-in grates: 100mmØ outlet with 200x200mm grate <sup>1</sup>	L15	100	200	78	43	3.2
141970	RPBT1510	Push-in grates: 100mmØ outlet with 150mmx150mm grate with fixed and removable strainer	L15	100	150	165	30	1.9
141971	SPBT2010	100mmØ outlet with Heelguard 200mmx200mm grate with fixed and removable strainer	L15	100	200	178	43	3.6

Notes: 1. Removable strainer basket available, Part No. 141920 to suit nominal 100mm diameter – see page 31  
 2. All dimensions are in mm

## Floor drains – full bodied

A comprehensive range of adjustable height full bodied floor drains with stainless steel grates for vertical and horizontal pipe connections. A variety of sizes from compact to deep variants are available depending on the application.

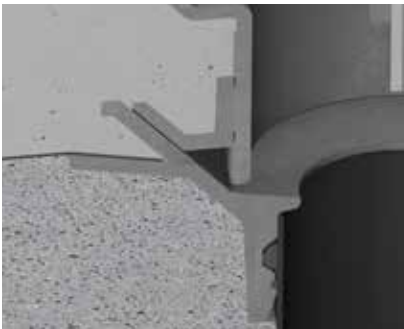


Linished stainless steel **Heelguard** grates for a high quality finish.

Meets ASME A112.6.3 Section 7.12 (American high heel standard) and complies with AS 3996 – Clause 3.3.5 Surface Openings in pedestrian areas.



Circular grates are ideal for use in screeded and vinyl sheet floors, a neat finish can be achieved around the circular level.



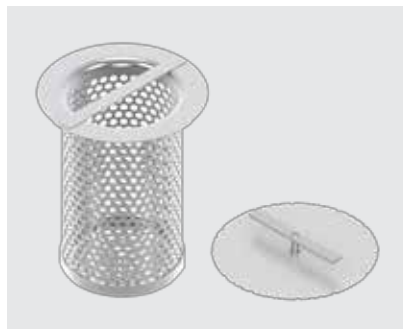
Puddle flanges available on some models for paintable waterproof membranes.



Membrane clamp ring is available on most models to preserve the integrity of the floor waterproofing.



Square grates can be used in any application, but are ideal for use in tiled floors as they are available in common tile sizes and allow easy tile cuts for a neat finish.



Stainless steel removable (primary) strainer baskets and fixed (secondary) strainers for sediment and trade waste applications.





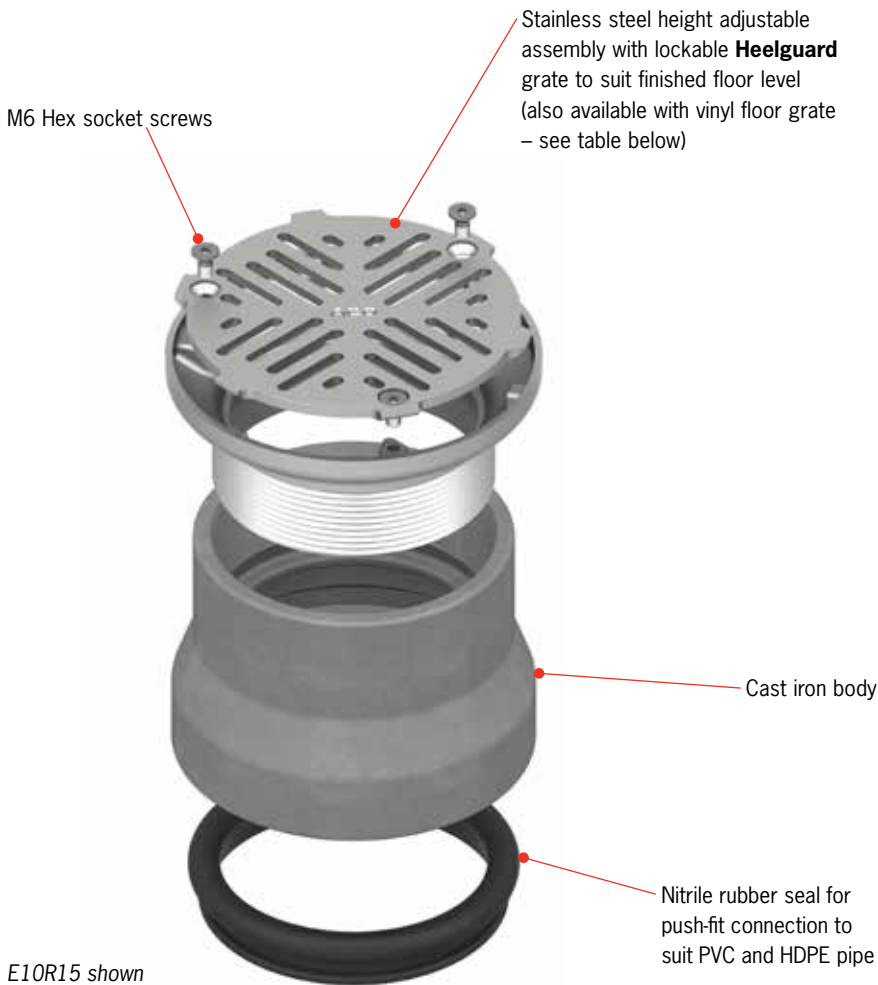
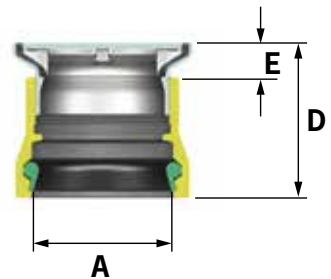
## Vertical utility floor drains – round grates

A basic variable height floor drain for use in areas where a membrane clamp ring is not required, such as on a ground floor slab.

Plan view



Section view



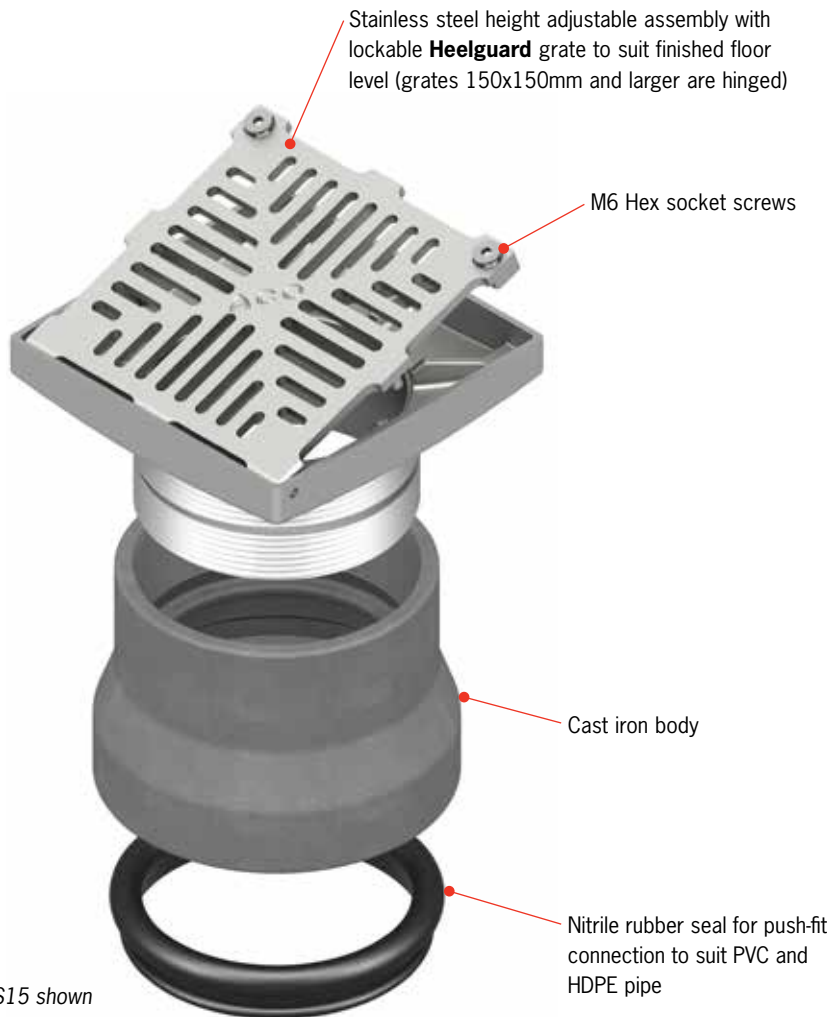
E10R15 shown

Part No.	Type	Description	Load class EN 1253	Outlet size Ø	Grate size Ø	Overall depth		Adjustable grate height		Wgt kg
						Min	Max	Min	Max	
						D		E		
						A	B			
141870	E10R15	Utility floor drain: 100mmØ outlet with 150mmØ grate <sup>1</sup>	L15	100	150	125	150	25	50	4.0
141871	E10R20	Utility floor drain: 100mmØ outlet with 200mmØ grate <sup>1</sup>	L15	100	200	139	176	39	76	5.1
141872	E10V14	Utility floor drain: 100mmØ outlet with 140mmØ vinyl grate	L15	100	140	133	148	33	48	4.0
141873	E10V18	Utility floor drain: 100mmØ outlet with 180mmØ vinyl grate <sup>1</sup>	K3	100	180	133	148	33	48	4.5

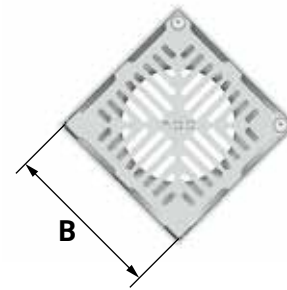
- Notes:**
1. Removable strainer basket available, Part No. 141920 to suit nominal 100mm diameter – see page 31
  2. Body and grate assemblies are also sold separately, contact ACO
  3. All dimensions are in mm

**Vertical utility floor drains – square grates**

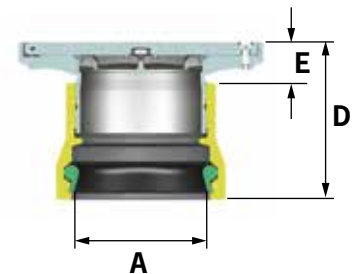
A basic variable height floor drain for use in areas where a membrane clamp ring is not required, such as on a ground floor slab.



Plan view



Section view

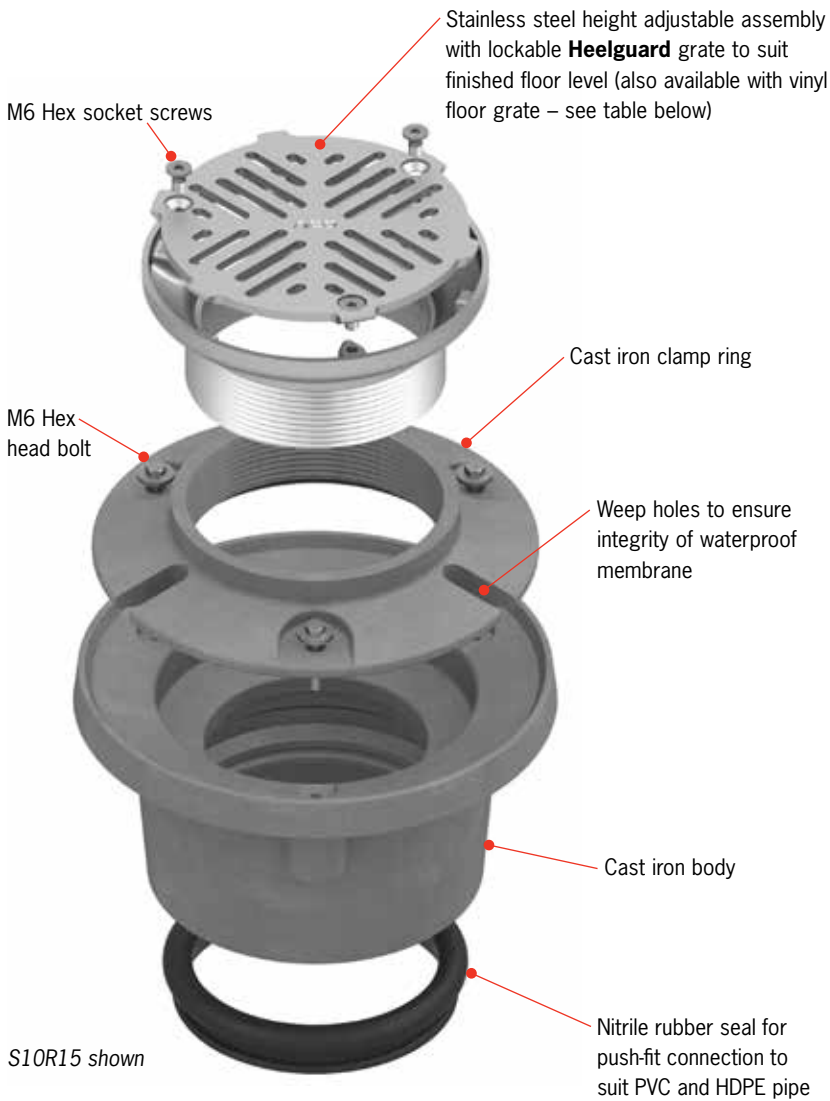


Part No.	Type	Description	Load class EN 1253	Outlet size Ø	Grate size	Overall depth		Adjustable grate height		Wgt kg	
						Min	Max	Min	Max		
						D		E			
						A	B				
141874	E10S15	Utility floor drain: 100mmØ outlet with 150x150mm grate <sup>1</sup>	L15	100	150	131	168	31	68	4.8	
141875	E10S20	Utility floor drain: 100mmØ outlet with 200x200mm grate <sup>1</sup>	L15	100	200	139	176	39	76	6.6	

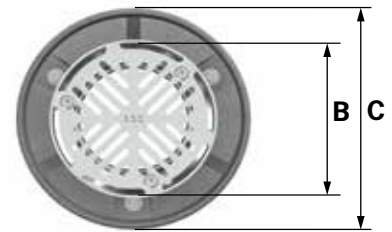
- Notes:**
1. Removable strainer basket available, Part No. 141920 to suit nominal 100mm diameter – see page 31
  2. Body and grate assemblies are also sold separately, contact ACO
  3. All dimensions are in mm

## Vertical short floor drains – round grates

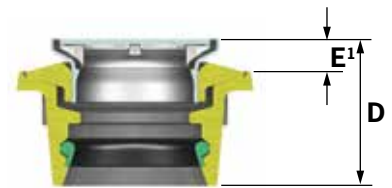
A short variable height floor drain for use in concrete and vinyl floors in plant rooms, walkways, hospitals, commercial kitchens, food processing plants and industrial laundries.



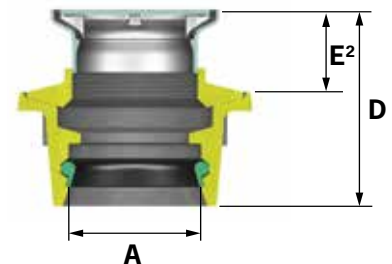
Plan view



Section view



With clamp ring facing down



With clamp ring facing up

S10R15 shown

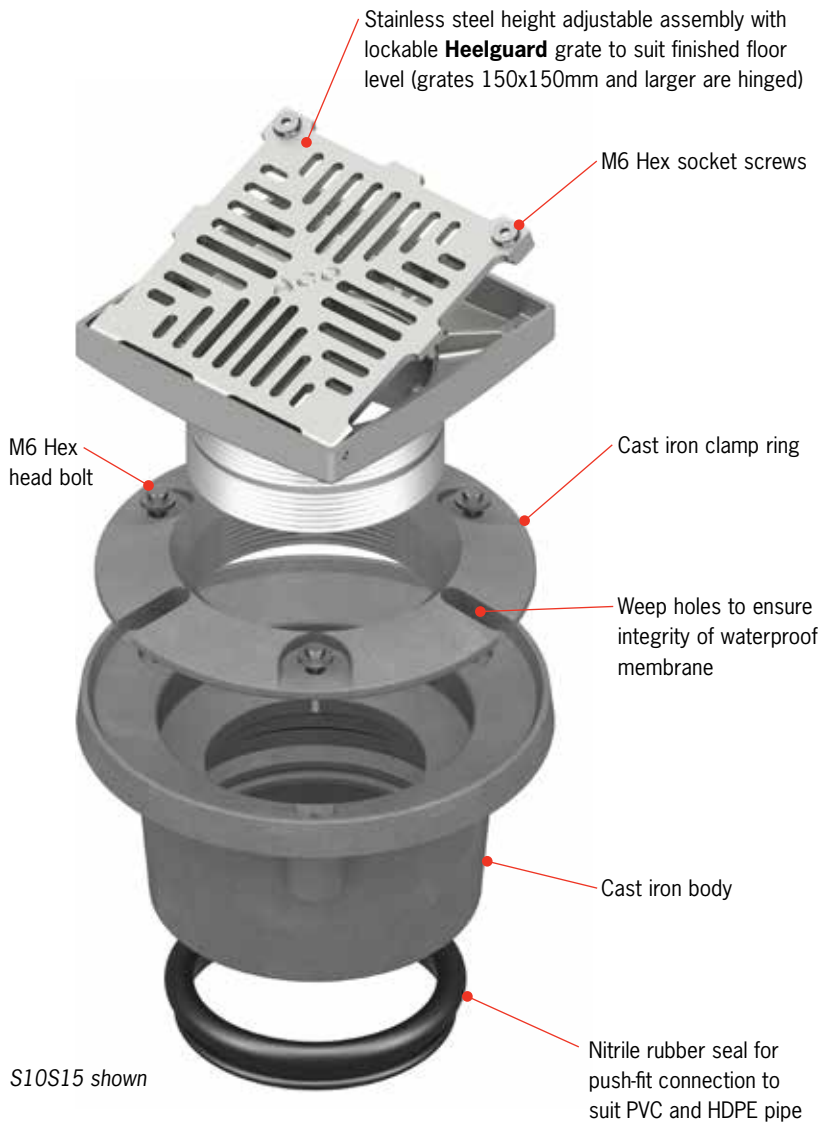
Part No.	Type	Description	Load class EN 1253	Outlet size Ø	Grate size Ø	Body size Ø	Overall depth		Adjustable grate height				Wgt kg
							Min	Max	Clamp down		Clamp up		
									Min	Max	Min	Max	
D		E <sup>1</sup>		E <sup>2</sup>									
141862	S05R10	Short floor drain: 50mmØ outlet with 100mmØ grate	L15	50	100	138	120	173	25	50	53	78	4.5
141863	S10R15	Short floor drain: 100mmØ outlet with 150mmØ grate <sup>1</sup>	L15	100	150	209	137	180	30	50	51	73	9.2
141864	S10R20	Short floor drain: 100mmØ outlet with 200mmØ grate <sup>1</sup>	K3	100	200	209	157	206	50	76	59	99	9.3
141865	S10V14	Short floor drain: 100mmØ outlet with 140mmØ vinyl grate	L15	100	140	209	141	178	34	48	56	71	9.2
141866	S10V18	Short floor drain: 100mmØ outlet with 180mmØ vinyl grate <sup>1</sup>	K3	100	180	209	107	178	36	49	56	71	9.7

- Notes:**
1. Removable strainer basket available, Part No. 141920 to suit nominal 100mm diameter – see page 31
  2. Body and grate assemblies are also sold separately, contact ACO
  3. All dimensions are in mm

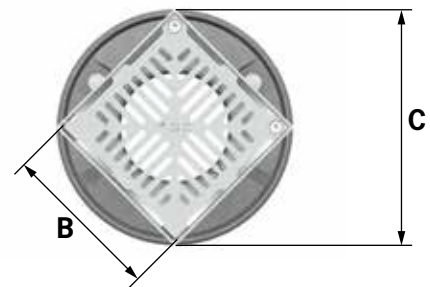


**Vertical short floor drains – square grates**

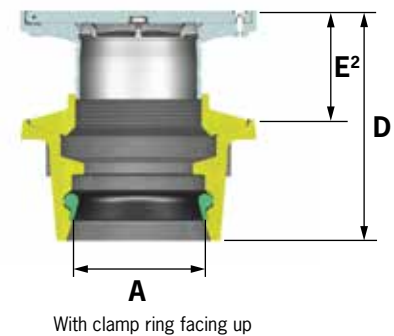
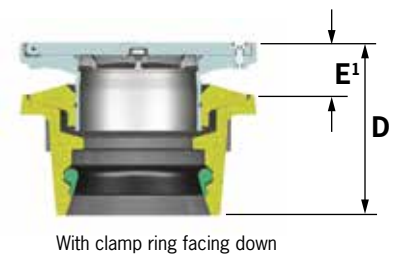
A short variable height floor drain for use in concrete and tiled floors in plant rooms, walkways, hospitals, commercial kitchens, food processing plants and industrial laundries.



Plan view



Section view



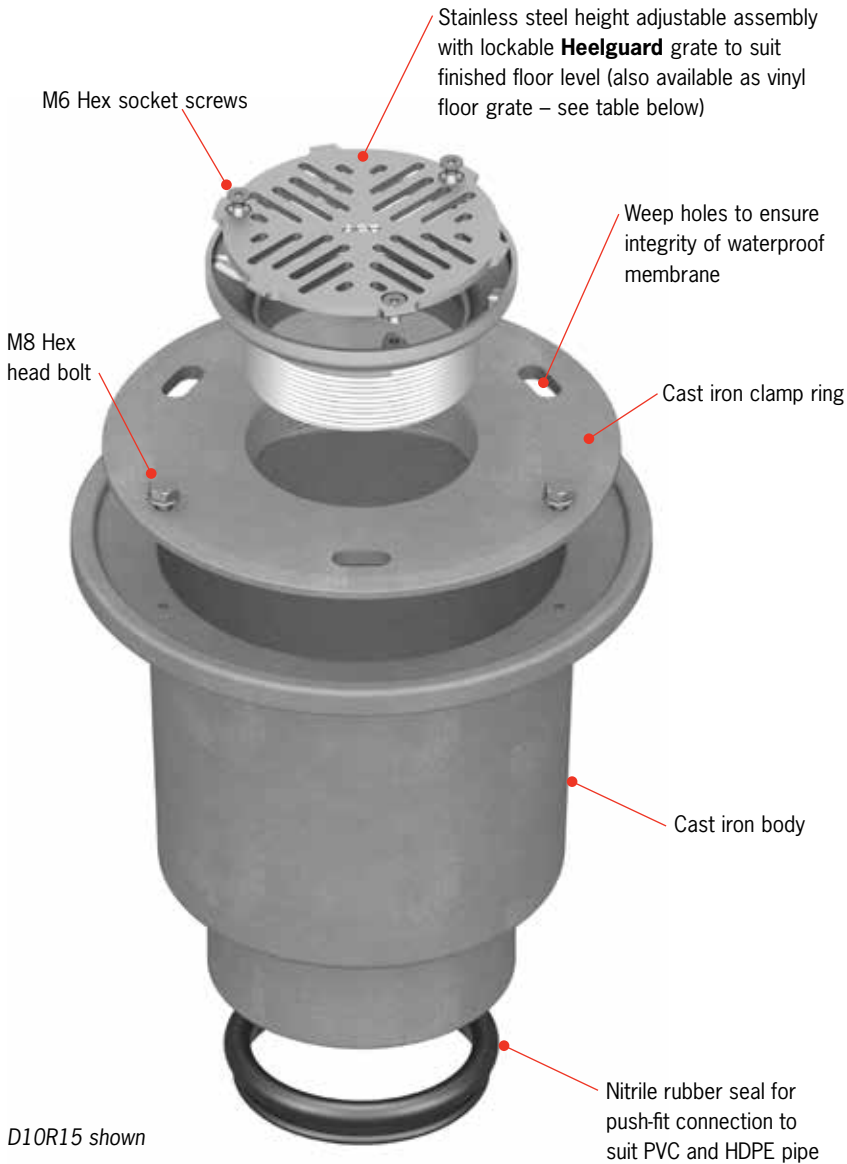
S10S15 shown

Part No.	Type	Description	Load class EN 1253	Outlet size Ø	Grate size	Body size Ø	Overall depth		Adjustable grate height				Wgt kg
							Min	Max	Clamp down		Clamp up		
									Min	Max	Min	Max	
							D	E <sup>1</sup>		E <sup>2</sup>			
141867	S05S10	Short floor drain: 50mmØ outlet with 100x100mm grate	L15	50	100	138	124	177	29	54	57	82	4.6
141868	S10S15	Short floor drain: 100mmØ outlet with 150x150mm grate <sup>1</sup>	L15	100	150	209	149	198	42	68	51	91	10.0
141869	S10S20	Short floor drain: 100mmØ outlet with 200x200mm grate <sup>1</sup>	L15	100	200	209	157	206	50	76	59	99	11.8

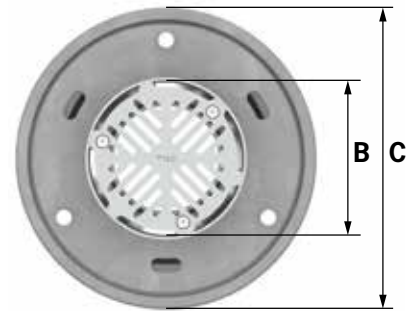
- Notes:**
1. Removable strainer basket available, Part No. 141920 to suit nominal 100mm diameter – see page 31
  2. Body and grate assemblies are also sold separately, contact ACO
  3. All dimensions are in mm

## Vertical deep floor drains – round grates

A deep variable height floor drain, primarily for use in trade waste applications such as food processing plants, garbage rooms and compactor rooms.



Plan view



Section view



With clamp ring facing down



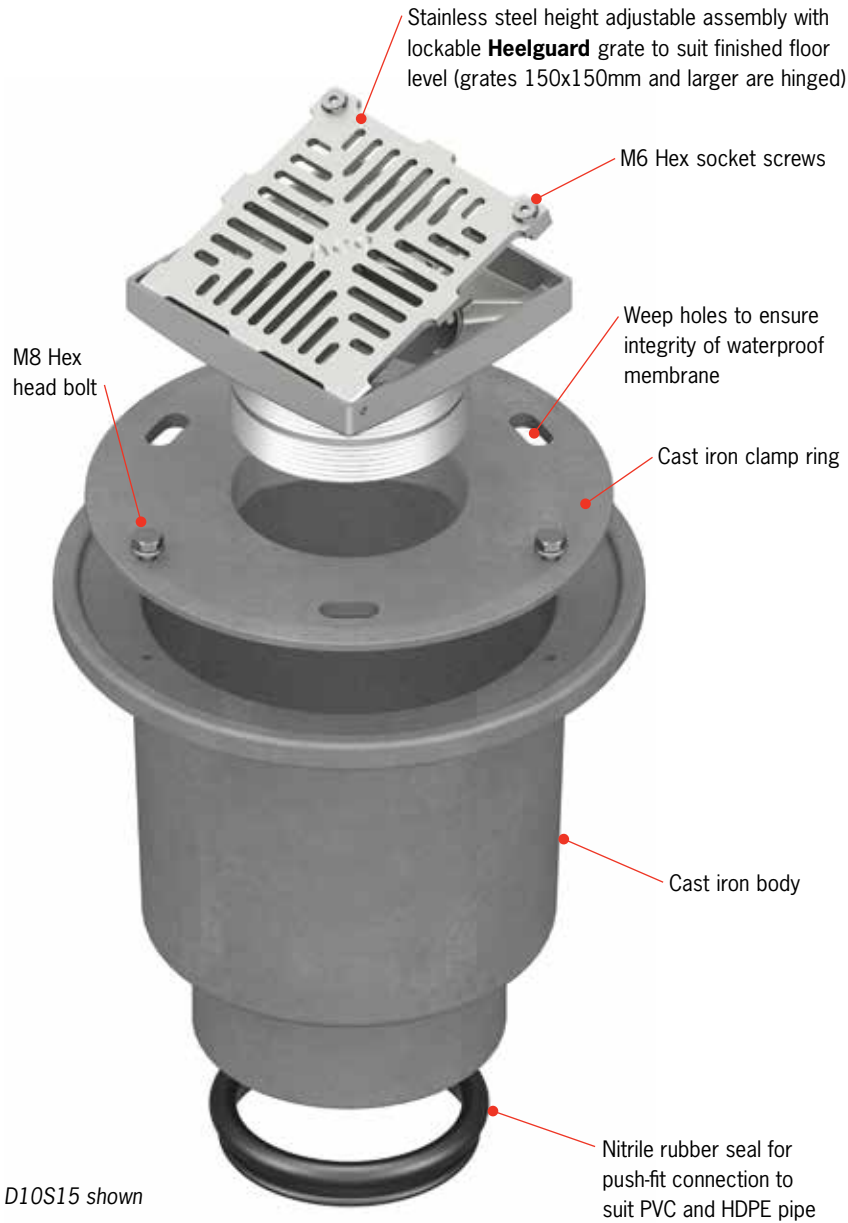
With clamp ring facing up

Part No.	Type	Description	Load class EN 1253	Outlet size Ø	Grate size Ø	Body size Ø	Overall depth		Adjustable grate height				Wgt kg
							Min	Max	Clamp down		Clamp up		
									E <sup>1</sup>		E <sup>2</sup>		
A	B	C	D	E <sup>1</sup>	E <sup>2</sup>								
141876	D10R15	Deep floor drain: 100mmØ outlet with 150mmØ grate <sup>1</sup>	L15	100	150	279	284	324	28	50	46	68	17.5
141877	D10R20	Deep floor drain: 100mmØ outlet with 200mmØ grate <sup>1</sup>	K3	100	200	279	292	350	36	76	54	94	18.5
141878	D10V14	Deep floor drain: 100mmØ outlet with 140mmØ vinyl grate	L15	100	140	279	289	322	33	48	51	66	17.3
141879	D10V18	Deep floor drain: 100mmØ outlet with 180mmØ vinyl grate <sup>1</sup>	K3	100	180	279	289	322	33	48	51	66	17.8

**Notes:** 1. Strainer baskets available, Part No. 141920 (removable) to suit nominal 100mm diameter and Part No. 141921 (fixed) – see page 31  
 2. Body and grate assemblies are also sold separately, contact ACO  
 3. All dimensions are in mm

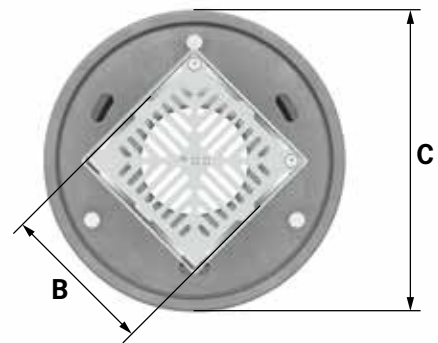
**Vertical deep floor drains – square grates**

A deep variable height floor drain, primarily for use in trade waste applications such as food processing plants, garbage rooms and compactor rooms.



D10S15 shown

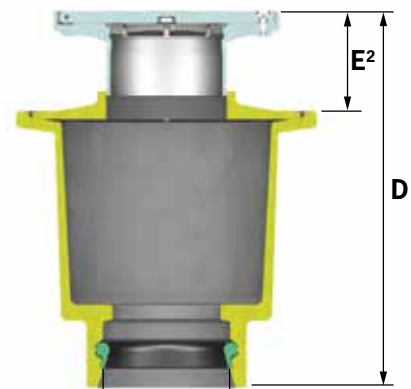
Plan view



Section view



With clamp ring facing down



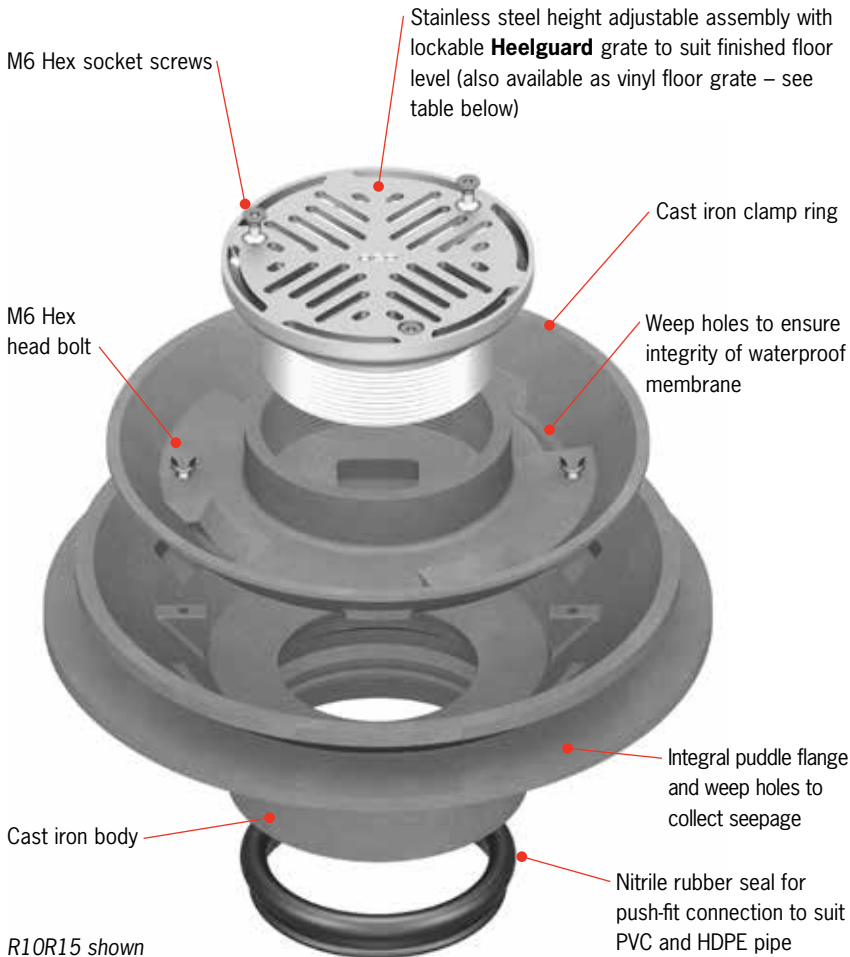
With clamp ring facing up

Part No.	Type	Description	Load class EN 1253	Outlet size Ø	Grate size	Body size Ø	Overall depth		Adjustable grate height				Wgt kg
							Min	Max	Clamp down		Clamp up		
									E <sup>1</sup>		E <sup>2</sup>		
D		A		B		C		D		E <sup>1</sup>		E <sup>2</sup>	
141880	D10S15	Deep floor drain: 100mmØ outlet with 150x150mm grate <sup>1</sup>	L15	100	150	279	284	342	28	68	46	86	18.3
141881	D10S20	Deep floor drain: 100mmØ outlet with 200x200mm grate <sup>1</sup>	L15	100	200	279	292	350	36	76	54	94	19.9
141882	D10S30	Deep floor drain: 100mmØ outlet with 300x300mm grate <sup>2</sup>	L15	100	300	279	305	374	50	100	67	118	26.5

- Notes:**
1. Strainer baskets available, Part No. 141920 (removable) to suit nominal 100mm diameter and Part No. 141921 (fixed) – see page 31
  2. Strainer baskets available, Part No. 141923 (removable) to suit nominal 150mm diameter and Part No. 141921 (fixed) – see page 31
  3. Body and grate assemblies are also sold separately, contact ACO
  4. All dimensions are in mm

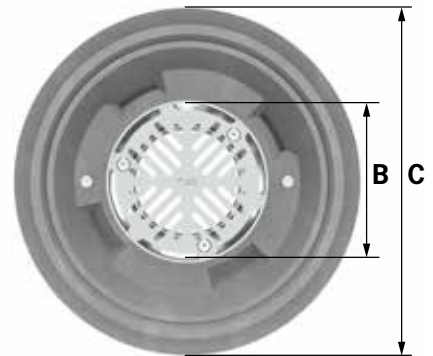
## Vertical floor drains with puddle flange – round grates

A variable height floor drain incorporating a puddle flange with weep holes to allow for seepage around the outlet to be collected. Suitable for use in multi-level buildings, plant rooms, hospitals, shopping centres, commercial kitchens and food processing plants.

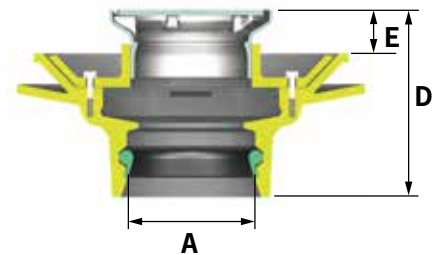


R10R15 shown

Plan view



Section view

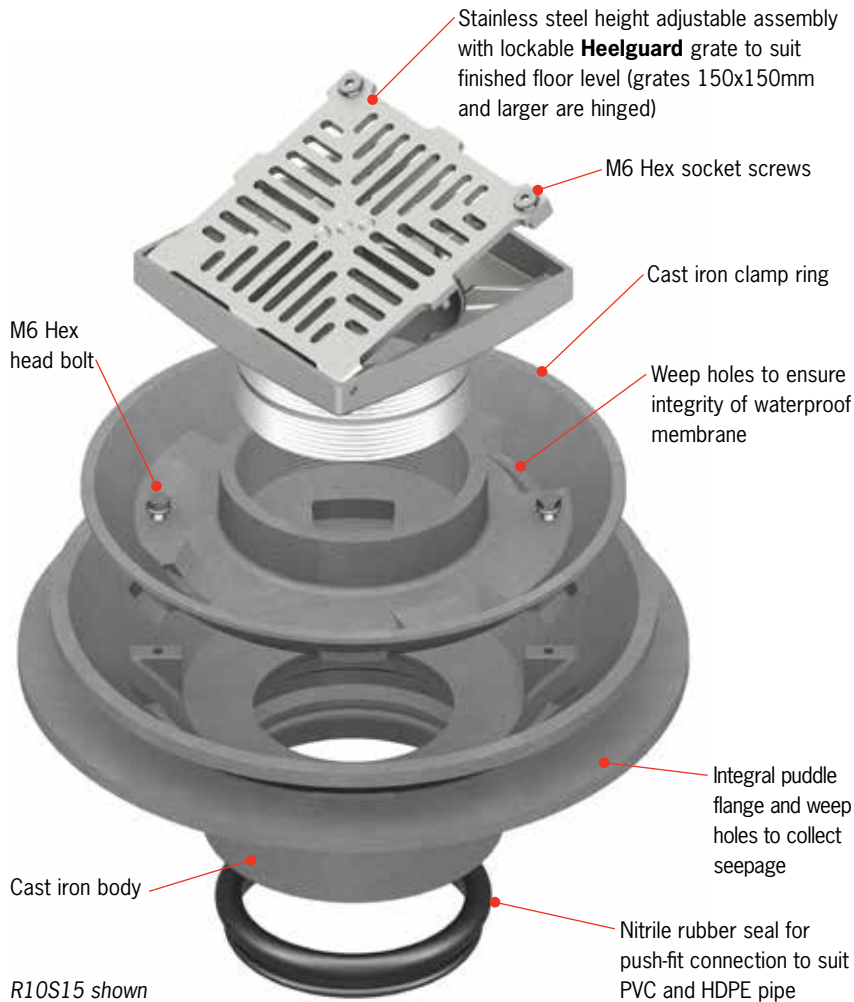


Part No.	Type	Description	Load class EN 1253	Outlet size Ø	Grate size Ø	Body size Ø	Overall depth		Adjustable grate height		Wgt kg	
							Min	Max	Min	Max		
							D		E			
				A	B	C						
141883	R10R15	Vertical floor drain with puddle flange: 100mmØ outlet with 150mmØ grate <sup>1</sup>	L15	100	150	320	162	184	36	58	13.7	
141884	R10R20	Vertical floor drain with puddle flange: 100mmØ outlet with 200mmØ grate <sup>1</sup>	K3	100	200	320	170	210	44	84	14.7	
141885	R10V14	Vertical floor drain with puddle flange: 100mmØ outlet with 140mmØ vinyl grate <sup>1</sup>	L15	100	140	320	167	182	41	56	13.6	
141886	R10V18	Vertical floor drain with puddle flange: 100mmØ outlet with 180mmØ vinyl grate <sup>1</sup>	K3	100	180	320	167	182	41	56	14.2	
141887	R15R15	Vertical floor drain with puddle flange: 150mmØ outlet with 150mmØ grate <sup>1</sup>	L15	150	150	320	162	184	36	58	15.6	
141888	R15R20	Vertical floor drain with puddle flange: 150mmØ outlet with 200mmØ grate <sup>1</sup>	K3	150	200	320	170	210	44	84	16.6	
141889	R15V14	Vertical floor drain with puddle flange: 150mmØ outlet with 140mmØ vinyl grate	L15	150	140	320	167	182	41	56	15.5	
141890	R15V18	Vertical floor drain with puddle flange: 150mmØ outlet with 180mmØ vinyl grate <sup>1</sup>	K3	150	180	320	167	182	41	56	15.9	

- Notes:**
1. Removable strainer basket available, Part No. 141920 to suit nominal 100mm diameter – see page 31
  2. Body and grate assemblies are also sold separately, contact ACO
  3. All dimensions are in mm

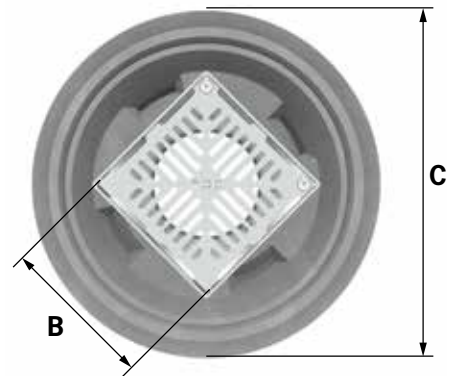
**Vertical floor drains with puddle flange – square grates**

A variable height floor drain incorporating a puddle flange with weep holes to allow for seepage around the outlet to be collected. Suitable for use in multi-level buildings, plant rooms, hospitals, shopping centres, commercial kitchens and food processing plants.

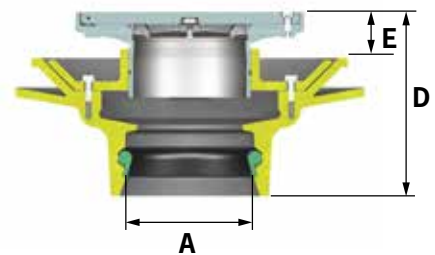


R10S15 shown

Plan view



Section view



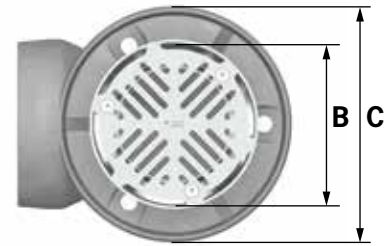
Part No.	Type	Description	Load class EN 1253	Outlet size Ø	Grate size	Body size Ø	Overall depth		Adjustable grate height		Wgt kg	
							Min	Max	Min	Max		
							D		E			
141891	R10S15	Vertical floor drain with puddle flange: 100mmØ outlet with 150x150mm grate <sup>1</sup>	L15	100	150	320	162	202	36	76	14.4	
141892	R10S20	Vertical floor drain with puddle flange: 100mmØ outlet with 200x200mm grate <sup>1</sup>	L15	100	200	320	170	210	44	84	16.2	
141893	R10S30	Vertical floor drain with puddle flange: 100mmØ outlet with 300x300mm grate <sup>2</sup>	L15	100	300	320	183	234	57	108	23.0	
141894	R15S15	Vertical floor drain with puddle flange: 150mmØ outlet with 150x150mm grate <sup>1</sup>	L15	150	150	320	162	202	36	76	16.4	
141895	R15S20	Vertical floor drain with puddle flange: 150mmØ outlet with 200x200mm grate <sup>1</sup>	L15	150	200	320	170	210	44	84	18.2	
141896	R15S30	Vertical floor drain with puddle flange: 150mmØ outlet with 300x300mm grate <sup>2</sup>	L15	150	300	320	183	234	57	108	24.8	

- Notes:**
1. Removable strainer basket available, Part No. 141920 to suit nominal 100mm diameter – see page 31
  2. Removable strainer basket available, Part No. 141923 to suit nominal 150mm diameter – see page 31
  3. Body and grate assemblies are also sold separately, contact ACO
  4. All dimensions are in mm

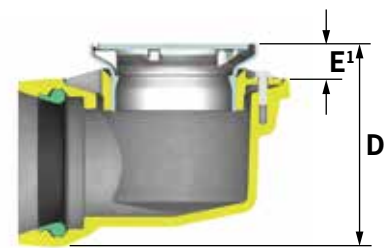
## Horizontal floor drains – round grates

A short, compact, variable height floor drain with a 90° outlet for use in concrete and vinyl floors, balconies or similar areas where pipework is concealed or cast within the slab.

Plan view



Section view



With clamp ring facing down



With clamp ring facing up



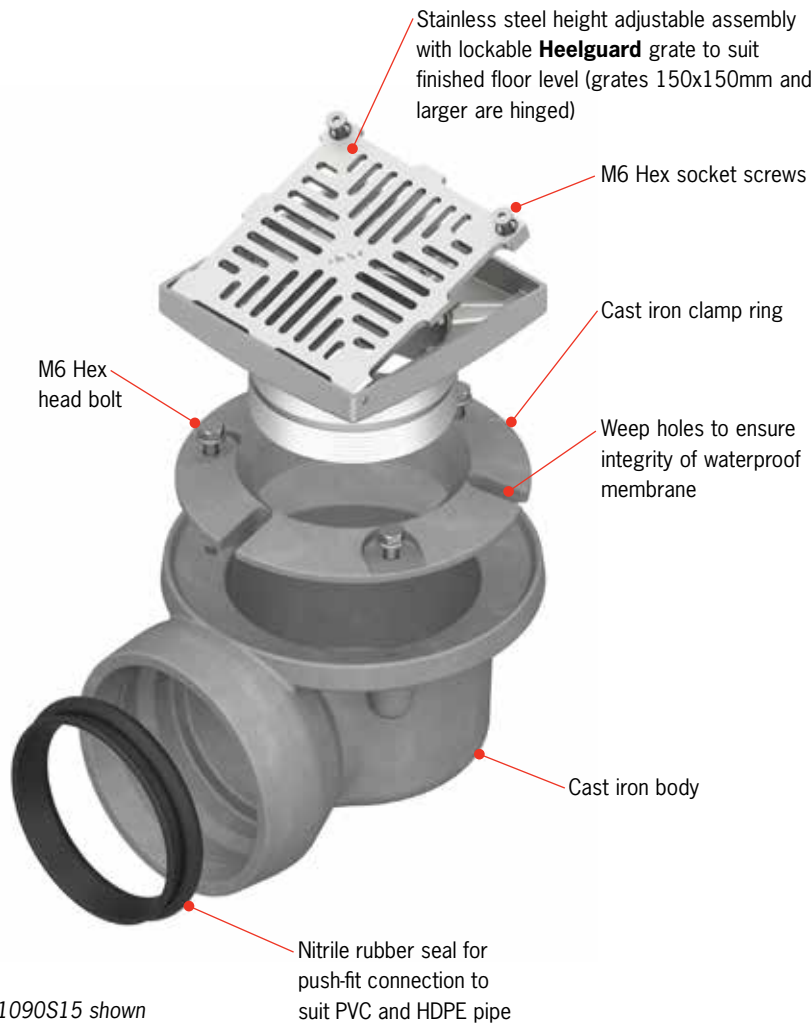
S1090R15 shown

Part No.	Type	Description	Load class EN 1253	Outlet size Ø	Grate size Ø	Body size Ø	Overall depth		Adjustable grate height				Wgt kg
							Min	Max	Clamp down		Clamp up		
									Min	Max	Min	Max	
							D	E <sup>1</sup>		E <sup>2</sup>			
141897	S0590R10	Horizontal floor drain: 50mmØ outlet with 100mmØ grate	L15	50	100	149	122	175	42	67	70	95	3.8
141898	S1090R15	Horizontal floor drain: 100mmØ outlet with 150mmØ grate <sup>1</sup>	L15	100	150	209	179	223	29	51	51	73	10.6
141899	S1090R20	Horizontal floor drain: 100mmØ outlet with 200mmØ grate <sup>1</sup>	K3	100	200	241	187	249	37	77	59	99	11.6
141900	S1090V14	Horizontal floor drain: 100mmØ outlet with 140mmØ vinyl grate	L15	100	140	241	184	221	34	49	56	71	10.5
141901	S1090V18	Horizontal floor drain: 100mmØ outlet with 180mmØ vinyl grate <sup>1</sup>	K3	100	180	241	186	221	36	49	56	71	11.1

- Notes:**
1. Strainer baskets available, Part No. 141920 (removable) to suit nominal 100mm diameter see page 31
  2. Body and grate assemblies are also sold separately, contact ACO
  3. All dimensions are in mm

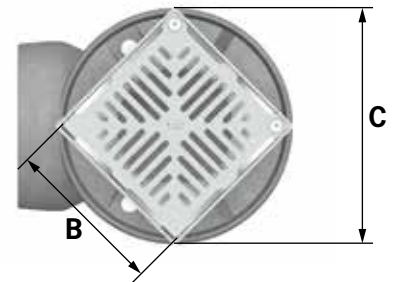
**Horizontal floor drains – square grates**

A short, compact, variable height floor drain with a 90° outlet for use in concrete and tiled floors, balconies or similar areas, where pipework is concealed or cast within the slab.

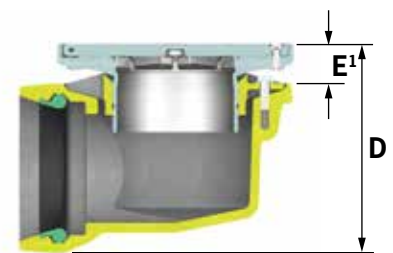


S1090S15 shown

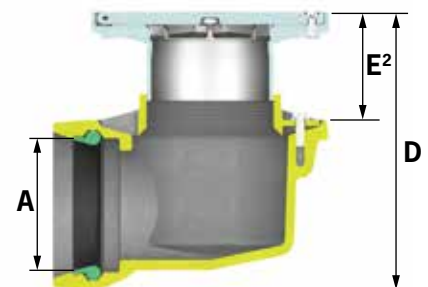
Plan view



Section view



With clamp ring facing down



With clamp ring facing up

Part No.	Type	Description	Load class EN 1253	Outlet size Ø	Grate size	Body size Ø	Overall depth		Adjustable grate height				Wgt kg	
							Min	Max	Clamp down		Clamp up			
				A	B	C	D		E <sup>1</sup>		E <sup>2</sup>			
141902	S0590S10	Horizontal floor drain: 50mmØ outlet with 100x100mm grate	L15	50	100	149	126	179	46	71	74	99	4.0	
141903	S1090S15	Horizontal floor drain: 100mmØ outlet with 150x150mm grate <sup>1</sup>	L15	100	150	241	184	241	34	70	51	91	11.3	
141904	S1090S20	Horizontal floor drain: 100mmØ outlet with 200x200mm grate <sup>1</sup>	L15	100	200	241	189	249	39	75	59	99	13.1	

- Notes:**
1. Strainer baskets available, Part No. 141920 (removable) to suit nominal 100mm diameter see page 31
  2. Body and grate assemblies are also sold separately, contact ACO
  3. All dimensions are in mm

## Roof drains

A roof drain with sheradised iron grates for conventional run-off collection. Suitable for flat roofs, car parks and similar areas.



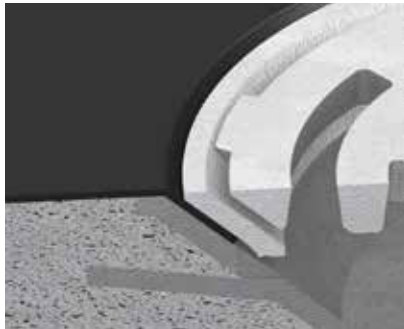
Flat grates are for use in applications where traffic is expected. Complies with AS 3996, Clause 3.3.5 Surface openings in pedestrian areas.



Domed grates offer superior inflow in areas with high levels of debris as the dome prevents blockage of slots.



Extension piece to suit finished roof levels.



Membrane clamp ring to preserve the integrity of roof waterproofing.



Hot dip galvanized iron grates provide a hard wearing, anti-corrosive finish.



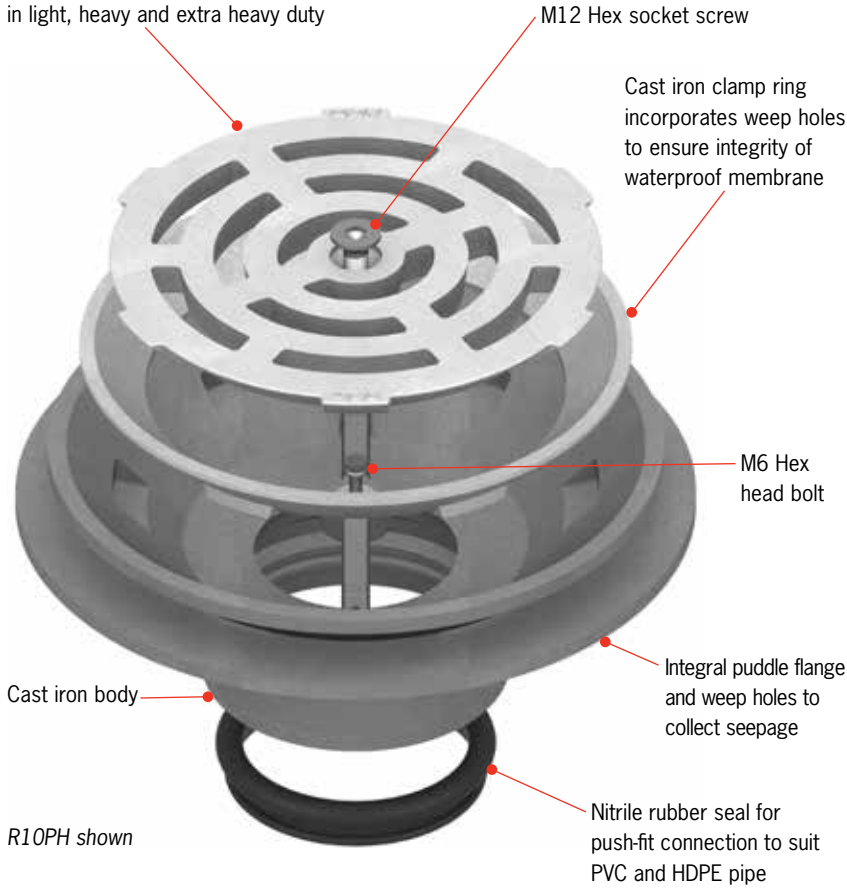




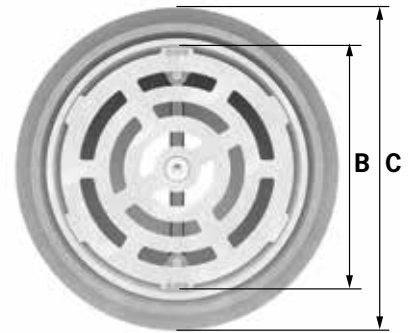
## Roof drains – flat grates

A standard profile roof drain for conventional runoff collection. Suitable for flat roofs, multistorey car parks and similar areas.

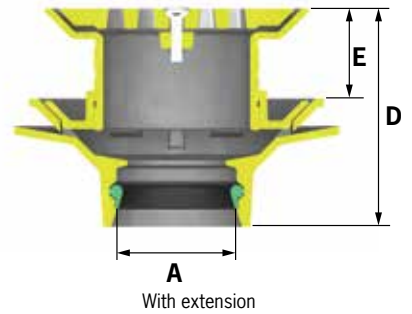
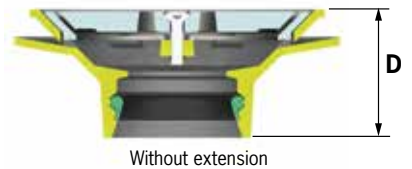
Hot dip galvanised iron lockable grate available in light, heavy and extra heavy duty



Plan view



Section view

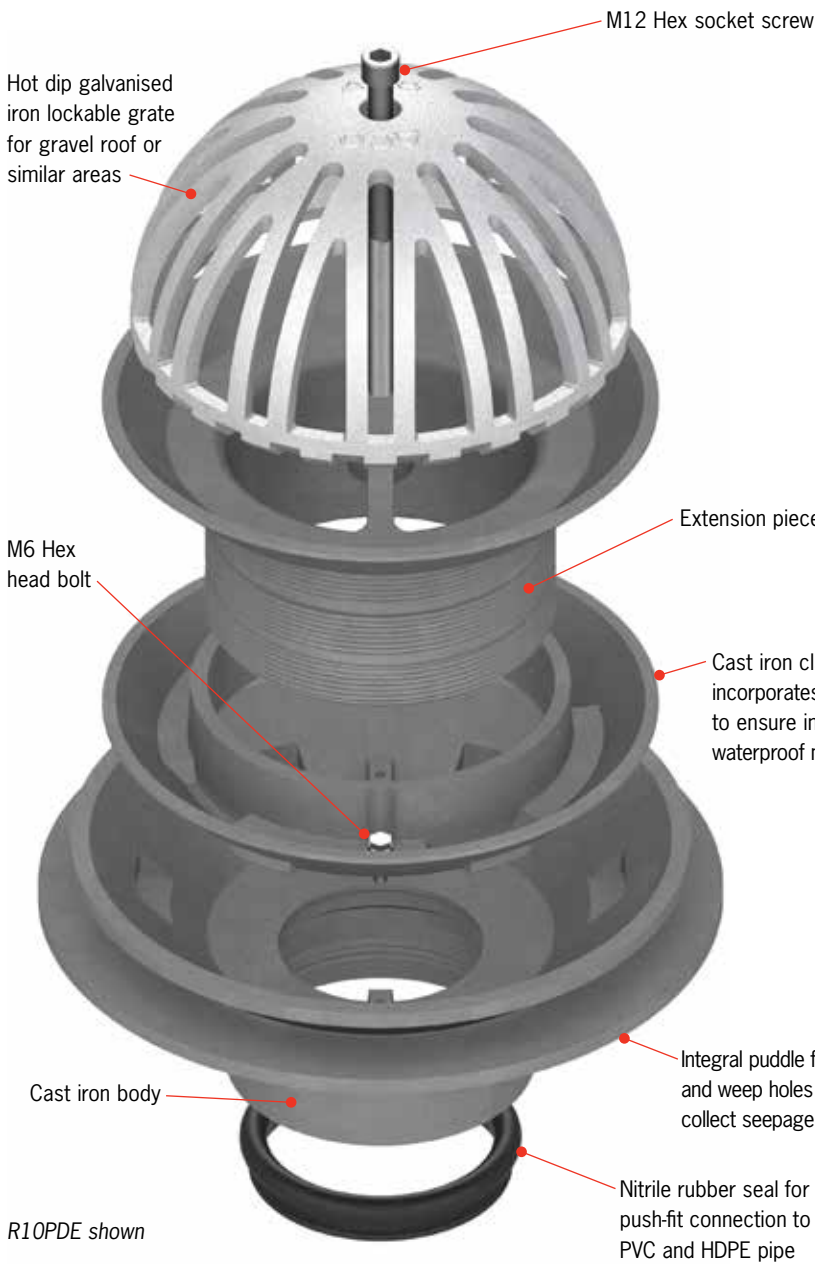


Part No.	Type	Description	Load class EN 1253	Outlet size Ø	Grate size Ø	Body size Ø	Overall depth		Adjustable grate height		Wgt kg
							Min	Max	Min	Max	
				A	B	C	D		E		
141905	R10PL	Roof drain: 100mmØ outlet with 250mmØ light duty flat grate	L15	100	250	320	126	126	N/A	N/A	13.2
141906	R10PH	Roof drain: 100mmØ outlet with 250mmØ heavy duty flat grate	R50	100	250	320	126	126	N/A	N/A	14.2
141907	R10PX	Roof drain: 100mmØ outlet with 250mmØ extra heavy duty flat grate 1	M125	100	250	320	126	126	N/A	N/A	14.9
141908	R15PL	Roof drain: 150mmØ outlet with 250mmØ light duty flat grate	L15	150	250	320	126	126	N/A	N/A	15.1
141909	R15PH	Roof drain: 150mmØ outlet with 250mmØ heavy duty flat grate	R50	150	250	320	126	126	N/A	N/A	16.1
141910	R15PX	Roof drain: 150mmØ outlet with 250mmØ extra heavy duty flat grate 1	M125	150	250	320	126	126	N/A	N/A	16.9
141911	R10PLE	Roof drain: 100mmØ outlet with 250mmØ light duty flat grate with extension	L15	100	250	320	166	246	65	118	19.6
141912	R10PHE	Roof drain: 100mmØ outlet with 250mmØ heavy duty flat grate with extension	R50	100	250	320	191	244	65	118	20.6
141913	R15PLE	Roof drain: 150mmØ outlet with 250mmØ light duty flat grate with extension	L15	150	250	320	191	244	65	118	21.7
141914	R15PHE	Roof drain: 150mmØ outlet with 250mmØ heavy duty flat grate with extension	R50	150	250	320	191	244	65	118	22.7

- Notes: 1. Membrane clamp ring not available for extra heavy duty grate  
2. Body and grate assemblies are also sold separately, contact ACO  
3. All dimensions are in mm

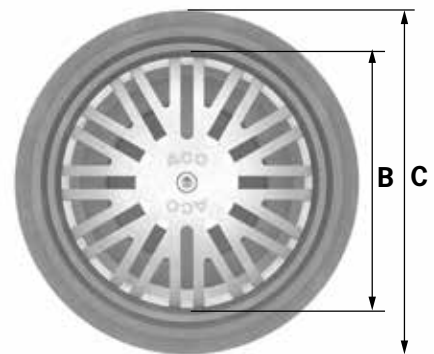
**Roof drains – domed grates**

A domed profile roof drain for runoff collection where there are high levels of debris. Suitable for flat roofs and similar areas.

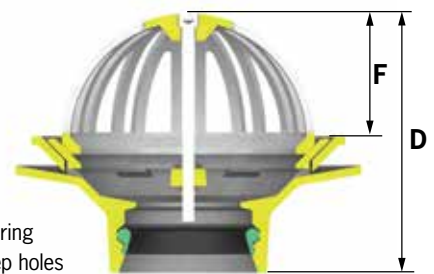


R10PDE shown

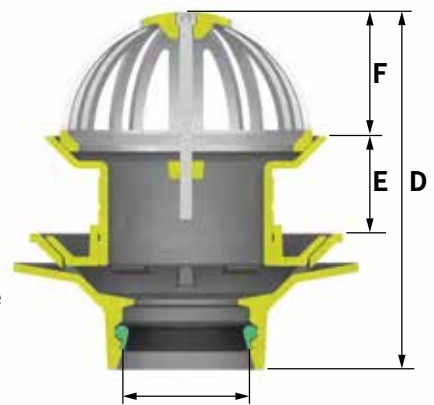
Plan view



Section view



Without extension



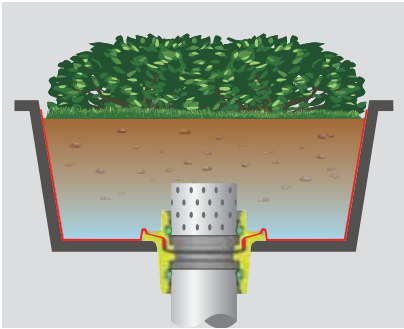
With extension

Part No.	Type	Description	Outlet size Ø	Grate size Ø	Body size Ø	Overall depth		Adjustable grate height		Dome height	Wgt kg
						Min	Max	Min	Max		
			A	B	C	D		E		F	
141915	R10PD	Roof drain: 100mmØ outlet with dome grate	100	234	320	239	239	N/A	N/A	113	14.2
141916	R15PD	Roof drain: 150mmØ outlet with dome grate	150	234	320	239	239	N/A	N/A	113	16.1
141917	R10PDE	Roof drain: 100mmØ outlet with dome grate with extension	100	234	320	306	359	65	118	113	20.6
141918	R15PDE	Roof drain: 150mmØ outlet with dome grate with extension	150	234	320	306	359	65	118	113	22.5

Notes: 1. Body and grate assemblies are also sold separately, contact ACO  
2. All dimensions are in mm

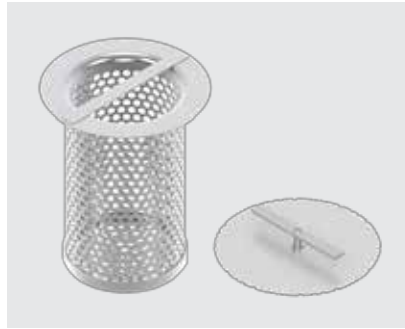
## Other products and accessories

### Planter drain outlet



Planter drain outlets for planter boxes requiring excess drainage.

### Strainer baskets



Stainless steel removable (primary) strainer baskets and fixed (secondary) strainers for sediment and trade waste applications.

### Clean-out



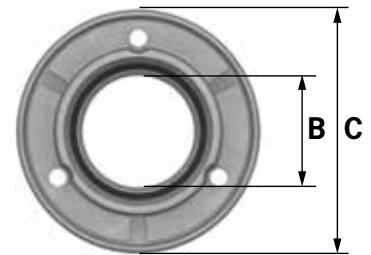
Solid cover clean-out provides a sealed access point to the plumbing pipe for maintenance and rodding access.



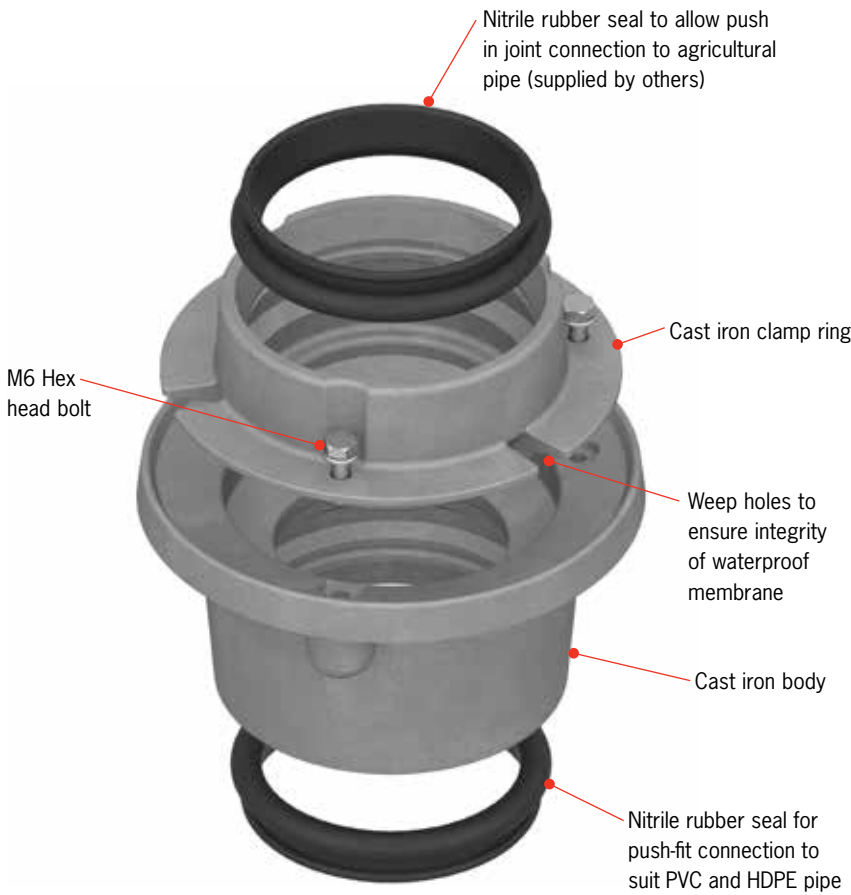
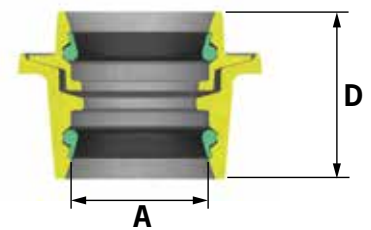
**Planter drain outlet**

A planter box drain designed to drain excess water from flower boxes or similar areas.

**Plan view**



**Section view**

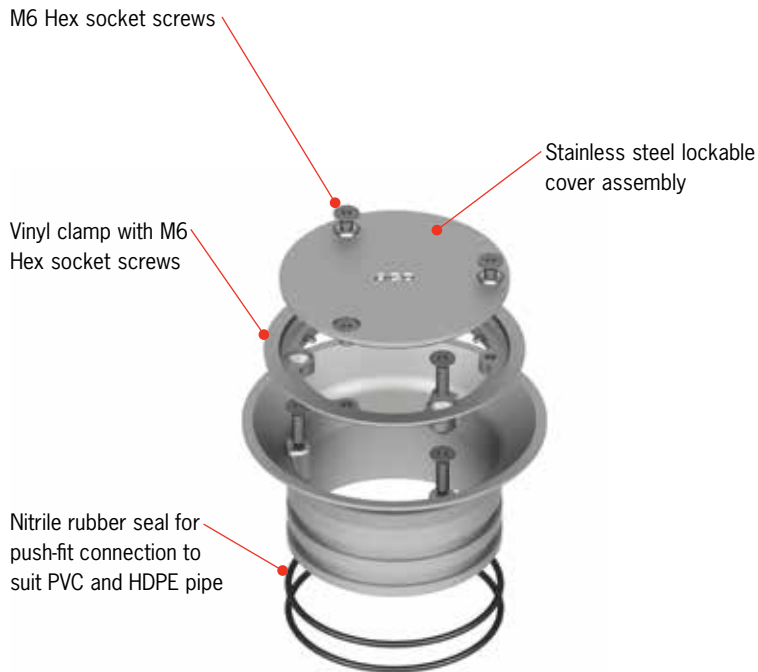


Part No.	Type	Description	Outlet size Ø A	Inlet size Ø B	Body size Ø C	Overall depth D	Wgt kg
141919	S10PB	Planter drain outlet: inlet/outlet size 100mmØ	100	100	209	142	8.3

**Notes:** 1. All dimensions are in mm

## Clean-out

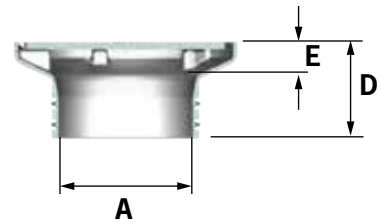
Solid cover clean-out provides a sealed access point to the plumbing pipe for maintenance and rodding access. This is useful when pipes are located in areas where usual inspection and rodding are not possible, for example with a fixed (secondary) strainer.



Plan view



Section view



Part No.	Type	Description	Load class EN 1253	Cover size Ø A	Grate size Ø B	Overall depth D	Cover height E	Wgt kg
141958	VP1410S	Push-in solid top clean-out: 100mmØ outlet with 140mmØ vinyl	L15	100	140	65	27	1.3

Notes: 1. All dimensions are in mm

**Strainer baskets**

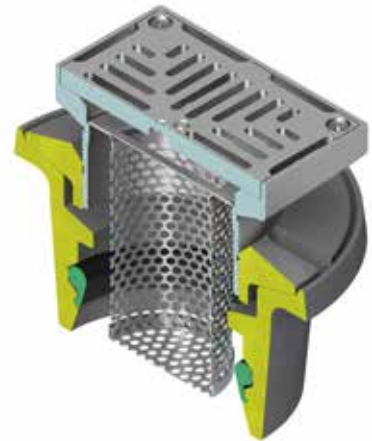
Most ACO Wexel floor drains are available with a choice of removable (primary) strainer baskets, and some can be fitted with a fixed (secondary) strainer. Refer to product selector on page 4 and notes beneath each parts table (page 10, 11 and 14 to 23).



Removable (primary) strainer basket  
(Nominal diameter 100mm shown)



Fixed (secondary) strainer



Example of vertical short floor drain with removable (primary) strainer basket



Example of vertical deep floor drain with removable (primary) strainer basket and fixed (secondary) strainer

Part No.	Type	Description	Body size Ø	Overall depth	Wgt kg
141920	SB100	Removable (primary) strainer for nominal 100mm diameter	100	126	0.1
141923	SB150	Removable (primary) strainer for nominal 150mm diameter	150	74	0.1
141921	SB152	Fixed (secondary) strainer	100	-	0.1

**Notes:** 1. All dimensions are in mm

# Installation guide

## Key requirements

Floor and roof drains are plumbing fixtures. They must be trapped, vented and tied to the building sanitary system or stormwater drainage system according to AS 3500.

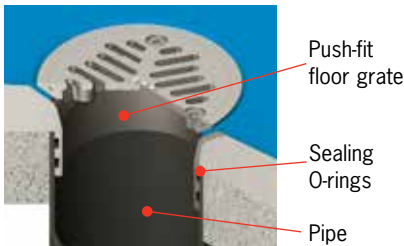
ACO Wexel comprises stainless steel floor grates, available both with and without cast iron bodies, for either a push-fit or a deep body connection.

The cast iron bodies are available in a number of options:

- Adjustable height tops to suit the finished floor level
- Clamp rings and puddle flanges to accommodate the waterproof membrane
- Bucket traps and other variants

## Floor drains – push-fit

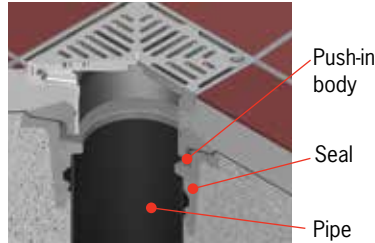
The assembly of pipe joints is quick and easy for these units. The outlet is sealed against the **inside** of the pipe.



1. Make sure that correct O-ring seal is fitted in place on push-in body to suit either PVC or HDPE pipe.
  - Red O-rings supplied are for HDPE pipe.
  - Black O-rings supplied are for PVC pipe (see page 8).
2. Make sure the cut end of the pipe is clean and free of burrs and rough edges – this will make fitment easier and eliminate damage to seals during fitment.
3. Apply a light application of lubricant to the seal and the pipe end, making sure mating ends of pipes and fittings are clean and free from contamination.
4. Push-fit body into pipe. Use some rotational movement to right and left as pipes come together.

## Floor and roof drains – full bodied

The assembly of these units is quick and easy. The outlet is sealed against the **outside** of the pipe (see page 12).

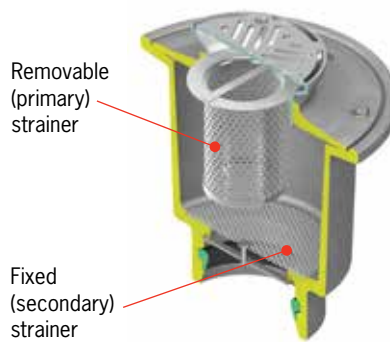


1. Make sure the cut end of the pipe is clean and free of burrs and rough edges – this will make fitment easier and eliminate damage to seals during fitment.
2. Apply a light application of lubricant to the seal and the pipe end, making sure mating ends of pipes and fittings are clean and free from contamination.
3. Push-fit body into pipe. Use some rotational movement to right and left as pipes come together.

## Bucket trap

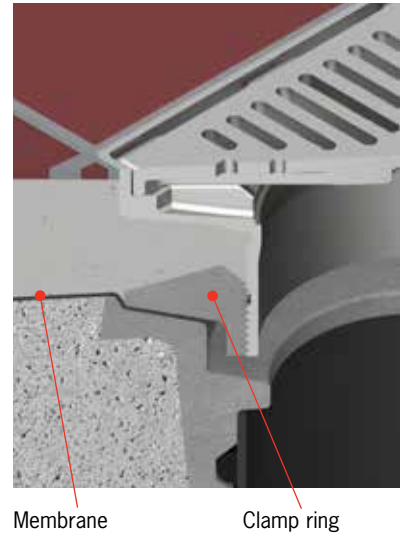
A bucket trap is predominantly used for trade waste applications as a means to keep waste products (e.g. food scraps) from entering and blocking the pipe system.

Bucket traps are ACO Wexel's vertical deep floor drains fitted with fixed and removable strainer baskets.



## Clamping membranes

Rolled, flexible material membranes can be secured with bolts through a clamp ring. The clamp ring has a drainage function incorporating weep holes.





**Grate height adjustments**

Adjustable grate assemblies and extension pieces for roof drains can be adjusted to suit a large range of heights. Once fitted, turn either clockwise to lower, or anti-clockwise to raise, until required height is achieved.

Sometimes the unit will need to be cut to achieve the required height.

To cut the unit, use an angle grinder with a cutting disc and cut the riser at the required section between threaded areas. Remove any sharp edges and burrs from cut edges with a file or grinding disc.

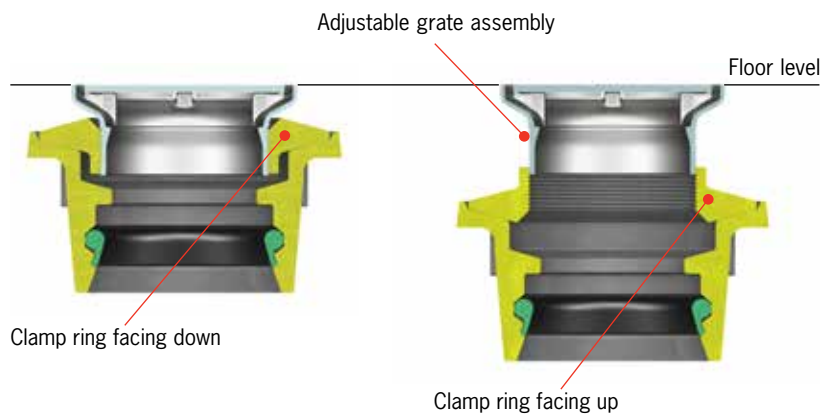


Cut units to desired height

**Orientation of clamp ring and fine tuning with thread**

Changing the clamp ring orientation (down or up) allows for more significant height alterations. Once orientation of the clamp ring is established and fixed in place, install the adjustable grate assembly.

Adjustable grate assemblies have a thread, which allows for easy fine tuning of height adjustment by turning either clockwise to lower, or anti-clockwise to raise, until required height is achieved.



**Accommodating vinyl floors**

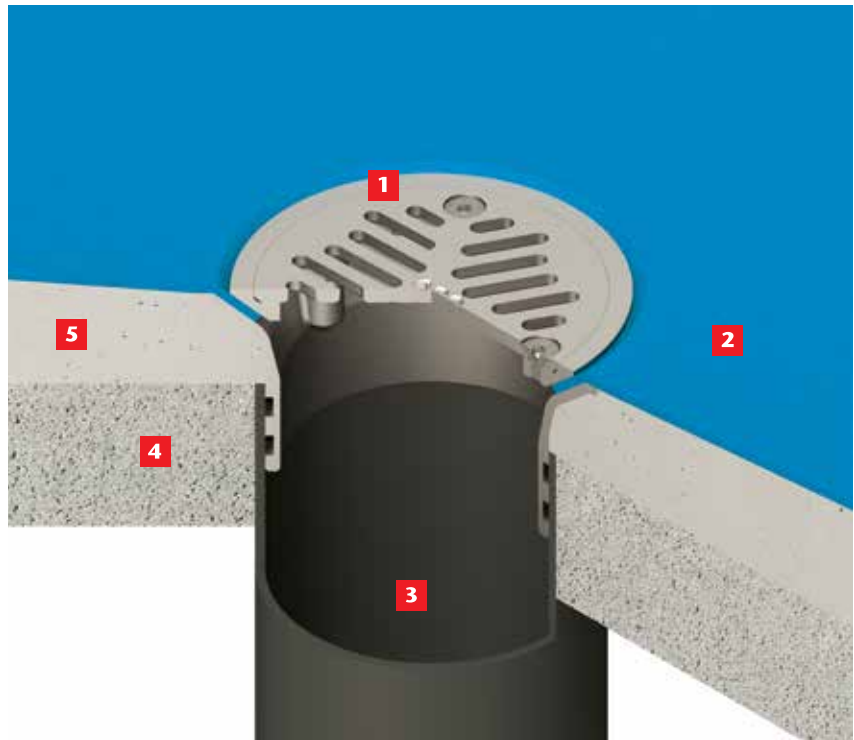
ACO Wexel push-in bodies and grate assemblies have the option to accommodate vinyl flooring by means of a clamping grate and flange. This creates a water tight seal between vinyl floor and clamp. Care must be taken when the vinyl is cut so that it can be securely clamped and not protrude into the open space beneath where it can restrict flow.



## Installation illustrations

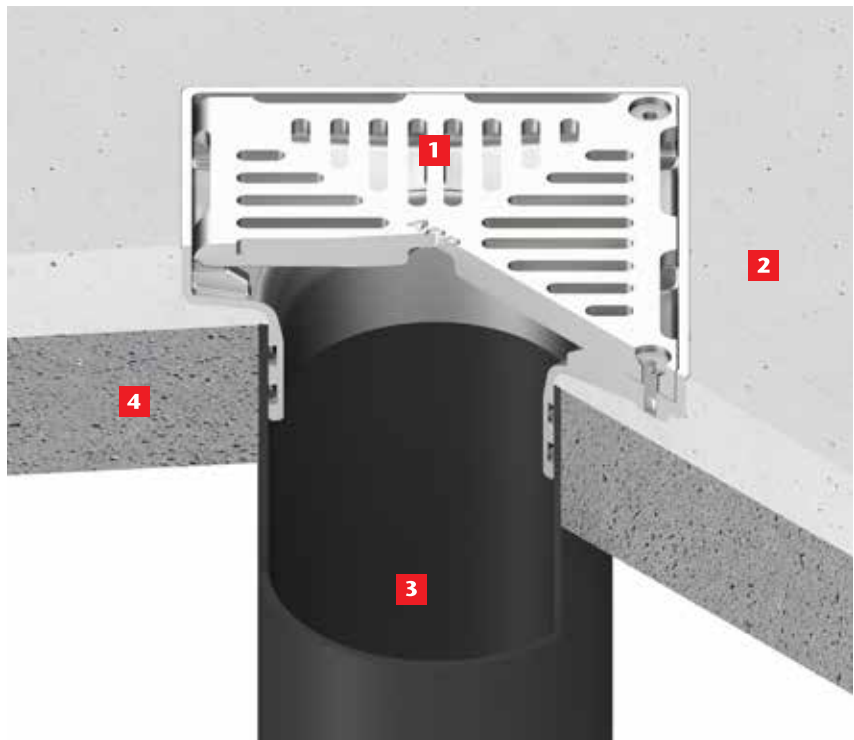
### Push-fit floor drain installed in vinyl floor

- 1** Floor drain – VP1410 shown
- 2** Vinyl sheet
- 3** Outlet pipe – HDPE or PVC
- 4** Concrete slab
- 5** Screed/mortar



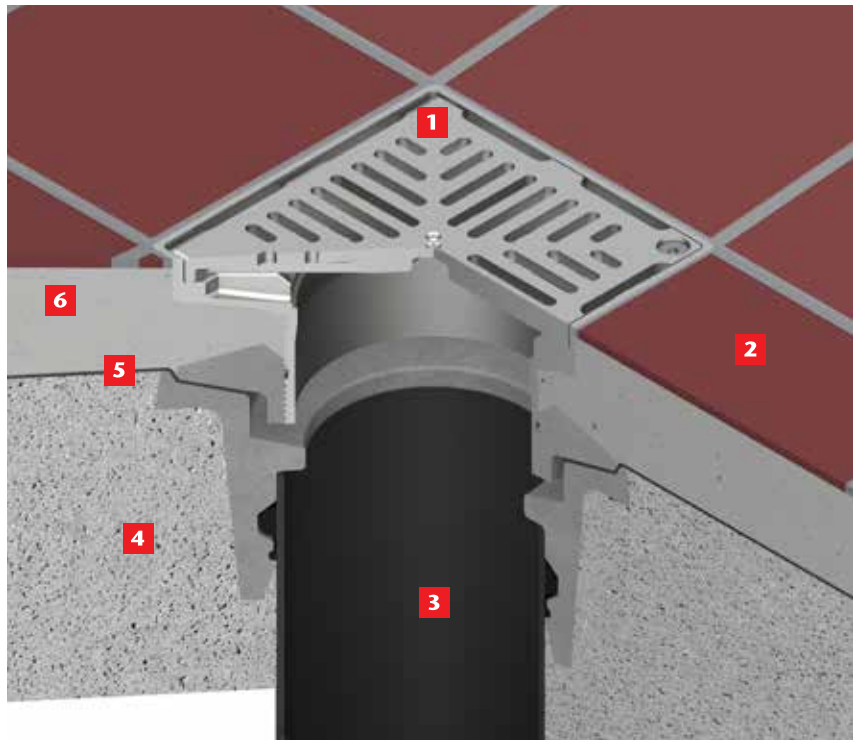
### Push-fit floor drain installed in screed floor

- 1** Floor drain – SP1510 shown
- 2** Topping screed
- 3** Outlet pipe – HDPE or PVC
- 4** Concrete slab



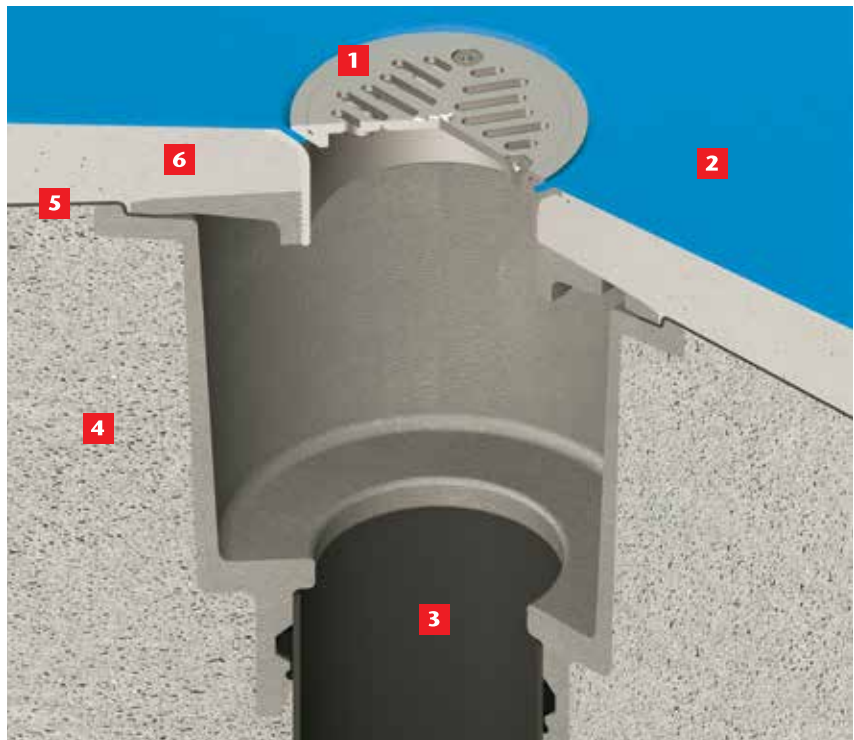
**Full bodied vertical short floor drain installed in tiled floor**

- 1** Floor drain – S10S15 shown
- 2** Glue fixed tile
- 3** Outlet pipe – HDPE or PVC
- 4** Concrete slab
- 5** Waterproof membrane (rolled)
- 6** Screed/mortar



**Full bodied vertical deep floor drain installed in vinyl floor**

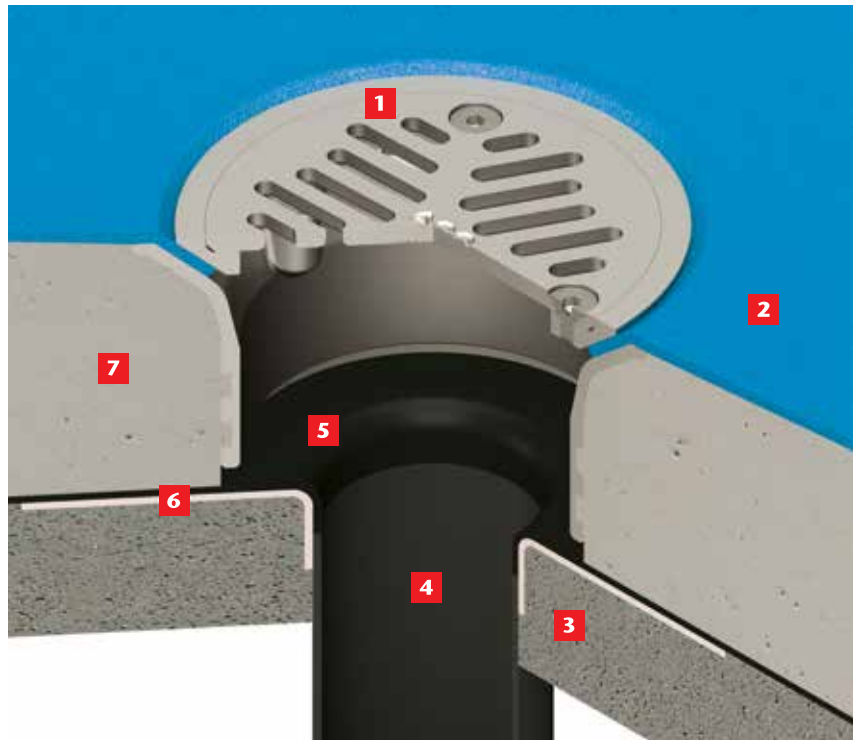
- 1** Floor drain – D10V14 shown
- 2** Vinyl sheet
- 3** Outlet pipe – HDPE or PVC
- 4** Concrete slab
- 5** Waterproof membrane (rolled)
- 6** Screed/mortar



## Installation illustrations

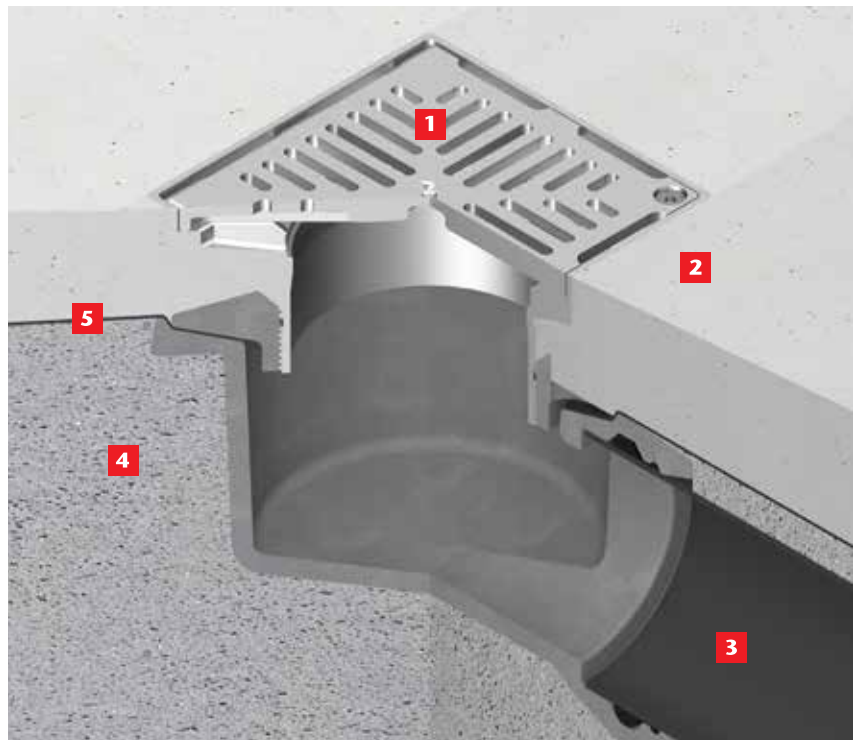
### Push-fit floor drain installed in vinyl floor with puddle flange

- 1** Floor drain – VP1410 shown
- 2** Vinyl sheet
- 3** Concrete slab
- 4** Outlet pipe – HDPE or PVC
- 5** Puddle flange (supplied by others)
- 6** Paintable waterproof membrane
- 7** Screed/mortar



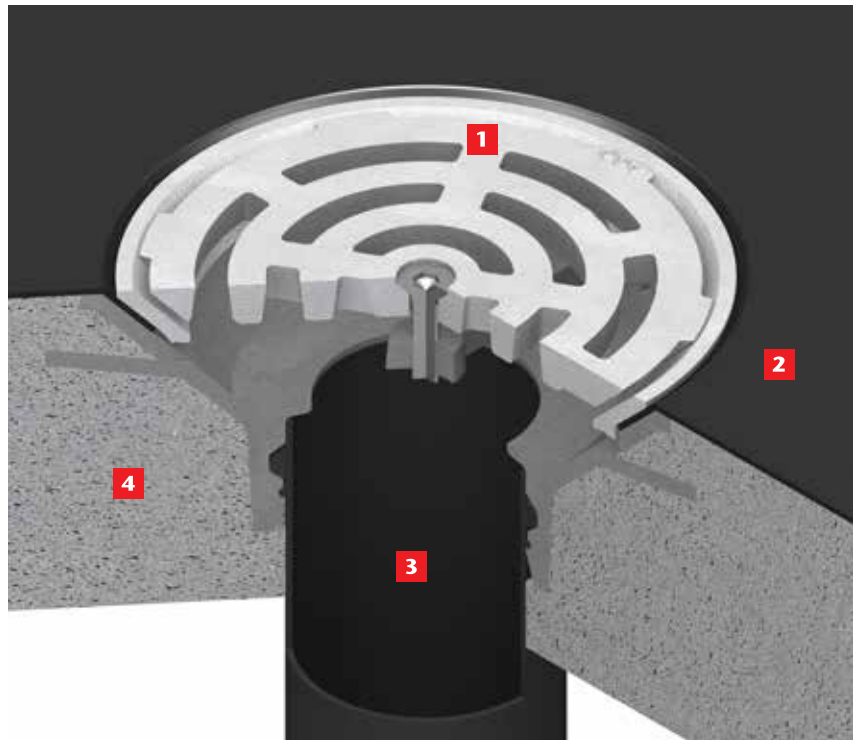
### Full bodied horizontal floor drain installed in tiled floor

- 1** Floor drain – S1090S15 shown
- 2** Topping screed
- 3** Outlet pipe – HDPE or PVC
- 4** Concrete slab
- 5** Waterproof membrane (rolled)



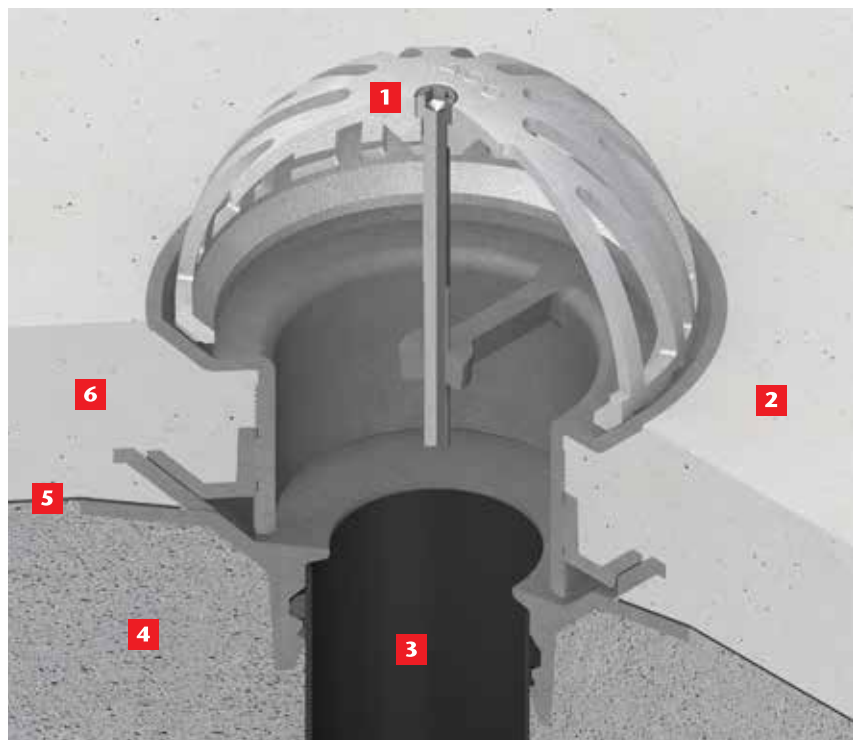
**Roof drain with flat grate**

- 1** Roof drain – *R10PH* shown
- 2** Roof membrane
- 3** Outlet pipe – HDPE or PVC
- 4** Concrete slab



**Roof drain with dome grate**

- 1** Roof drain – *R10PDE* shown
- 2** Topping screed
- 3** Outlet pipe – HDPE or PVC
- 4** Concrete slab
- 5** Paintable waterproof membrane
- 6** Screed/mortar



## Care and maintenance

ACO Wexel roof and floor drains require minimum maintenance when they have been correctly installed. Scheduled inspections should be carried out to ensure that they continue to perform efficiently.

### Initial inspection

Once drains have been installed they should be inspected to ensure that all parts are accounted for and correctly fitted. Nuts and bolts need to be tight and secure. Care must be taken around sharp objects (screws etc.) left by other trades, as they may be trodden on. This can cause damage to the surface material and/or waterproof membrane.

### Roof drain maintenance

Every flat roof must have an inspection plan. Roof inspections should be carried out on a regular basis, especially in locations where there are nearby trees creating leaf blockage.

Blockages must be cleared immediately to ensure the system does not overflow. Plastic bags will quickly block a drain or grate, whilst airborne grit and fines will silt up gradually and restrict the flow.

### Floor drain maintenance

Regular drain cleaning is very important where there is the potential of severe flooding.

Floor drains are an entry point into the sanitary or stormwater drainage system. Waste is often washed down from floors as well as leaves and litter from external pavements. If maintenance is neglected, solid debris will inevitably clog the underlying pipework causing backups.

Drains in commercial kitchens need particular attention, because wastewater generally contains fats, oil and grease.

For applications requiring a more hygienic and durable solution, a stainless steel body and grate is recommended. Refer to the ACO Gully catalogue.

The use of strainer baskets for previously described applications are recommended to prevent debris from reaching pipework and resulting in costly maintenance.



Strainer baskets must be cleaned regularly. Cleaning intervals are determined by the amount of debris present after each cleaning session.

ACO Wexel's stainless steel floor grates are appropriate for general use in and around buildings including most coastal locations. Clean with soap, warm water rinse and wipe dry. Under no circumstances treat with metal scouring pads, metal scrapers or wire wool as these will contaminate surfaces leaving rust spots.

### Materials

ACO Wexel bodies and clamp rings are manufactured from cast iron, a widely used metal in the drainage industry as it is robust under extreme conditions.



ACO Wexel cast iron components are coated with a high grade lacquer which will eventually wear off to reveal an oxidised surface. Oxidation does not weaken the material.

Floor drain grates are manufactured from stainless steel and offer long term corrosion resistance in most applications.

Roof drain grates are manufactured from hot dip galvanised iron, which provides an extremely hard wearing finish. Seals are manufactured from nitrile rubber.



## Chemical resistance table

The table below is based on information gained from material suppliers and published information. Chemical resistance of materials may vary according to the concentration of chemicals used, the presence of other chemicals and other factors such as temperature.

The following information is a general guide only. It is the customer's responsibility to ensure the suitability of the product for the application. ACO can supply material samples for testing chemical resistance.

- A** No effect – excellent
- B** Minor effect – good
- C** Moderate effect – fair
- D** Severe effect – not recommended
- No data available

Chemical	Grade 304 Stainless Steel	Cast Iron	Nitrile Seal
Acetate solvent	B	B	D
Acetic Acid	B	D	C
Acetone	A	A	A
Alcohol (Amyl/Butyl)	A	C	A
Alcohol (Methyl)	A	A	B
Aluminium Chloride	D	D	A
Aluminium Fluoride	D	–	A
Aluminium Hydroxide	A	D	A
Ammonia, Liquids	A	A	B
Ammonia, Nitrate	A	–	A
Ammonium Carbonate	A	C	D
Ammonium Hydroxide	A	A	B
Ammonium Nitrate	A	A	A
Ammonium Sulphate	D	C	A
Amyl Alcohol	A	–	B
Antifreeze	A	B	A
Asphalt	B	C	B
Aviation Fuel (JP#, JP4, JP5)	A	A	A
Barium Carbonate	A	B	A
Barium Chloride	D	–	A
Barium Hydroxide	C	C	A
Beer	A	D	D
Benzene	A	B	D
Benzoic Acid	A	D	D
Benzol	A	–	D
Boric Acid	A	D	A
Butter	B	D	A
Buttermilk	A	D	A
Butyl Acetate	–	–	B
Calcium Chloride	A	C	A
Calcium Hydroxide	A	–	A
Cane Juice	A	A	A
Carbon Dioxide (wet)	A	C	–
Carbonated Water	A	D	A
Chlorine (Dry)	A	A	–
Chlorine Water	–	D	D
Chocolate Syrup	A	D	A
Cider	A	D	A
Citric Acid	A	D	D
Coffee	A	C	A
Cream	A	D	A
Detergents	A	–	A
Diesel Fuel	A	A	A
Dyes	A	–	–
Fatty Acids	A	D	C
Formic Acid	A	D	D
Fruit Juice	A	D	A
Fuel Oils	A	C	A
Grape Juice	A	D	A
Grease	A	A	A
Honey	A	A	A
Hydraulic Oils (Petroleum)	A	A	A
Hydrofluoric Acid (100%)	D	D	D
Hydrogen Peroxide	A	D	D
Hydrogen Sulfide, Aqueous Solution	D	D	C
Ink	A	D	A

Chemical	Grade 304 Stainless Steel	Cast Iron	Nitrile Seal
Lacquers	A	C	D
Lacquer Thinners	–	–	D
Lactic Acid	A	D	B
Lard	A	A	A
Lime	A	A	A
Lubricants	A	–	A
Mash	A	–	A
Mayonnaise	A	D	A
Methyl Acetone	–	A	D
Milk	A	D	A
Mustard	A	C	B
Oils: Aniline	A	A	D
Caster	A	A	A
Citric	A	D	A
Coconut	A	A	A
Corn	A	A	A
Fuel (1, 2, 3, 5A, 5B, 6)	A	–	B
Lemon	A	–	–
Mineral	A	A	A
Olive	A	A	A
Oxalic Acid (Cold)	A	D	B
Paraffin	A	B	A
Phosphoric Acid (Crude)	D	D	D
Petroleum	A	A	A
Potassium Bromide	A	D	A
Potassium Carbonate	A	B	B
Potassium Chloride	A	B	A
Potassium Nitrate	A	–	A
Rust Inhibitors	A	A	A
Salad Dressing	A	D	A
Sea Water	A	–	A
Silicone	B	–	A
Soap Solutions	A	B	A
Sodium Hydroxide/Caustic Soda (20%)	A	A	A
Sodium Hydroxide/Caustic Soda (50%)	A	B	D
Sodium Hydroxide/Caustic Soda (80%)	A	C	D
Sodium Hypochlorite (to 20%)	C	D	C
Sodium Peroxide	A	D	C
Soy Sauce	A	D	A
Starch	A	C	A
Styrene	A	–	D
Sugar (Liquids)	A	B	A
Sulphur Dioxide	A	–	D
Sulphuric Acid (to 10%)	D	D	C
Sulphuric Acid (10-75%)	D	D	D
Sulphuric Acid (75-100%)	–	–	D
Syrup	A	–	A
Tomato Juice	A	C	A
Vegetable Juice	A	D	A
Vinegar	A	C	C
Varnish	A	–	B
Water Distilled, Lab Grade 7	A	D	A
Water (Fresh)	A	B	A
Water (Salt)	A	D	A
Weed Killers	A	–	B
Xylene	A	A	D



## ACO Building Drainage Products

ACO Building Drainage Products range comprises:

- **ACO Wexel**  
Cast floor and roof drains
- **ACO Stainless**  
Industrial stainless steel linear drainage systems
- **ACO Food**  
Stainless steel drainage systems for food and beverage applications
- **ACO Gully**  
Stainless steel floor gullies
- **ACO Pipe**  
Stainless steel push-fit waste pipes
- **ACO BuildLine**  
Drainage for thresholds, balconies and green roofs
- **QuARTz by ACO**  
Bathroom linear drains and floor wastes
- **ACO Passavant**  
Grease separators

Contact ACO for information relating to ACO's Surface Water Management and Utility Enclosure Solutions.

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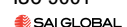
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