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ACO Building Drainage

Gully Systems







ACO product catalogue

ACO TotalFlow Gully Systems



ACO Building Drainage

Our built environment is becoming ever more complex. Applications are becoming more sophisticated and the increasing pressure of regulations and standards makes achieving design, performance and financial goals ever tougher.

Our mission: to eliminate design risk, to reduce installed and life cost and to deliver exceptional finish and performance in every product application.

Our global resources and manufacturing capacity make it possible for us to deliver best value, both with our standard products and with our bespoke designs. Confidence is further assured with quality systems that are in accordance with ISO 9001-2008.

ACO Building Drainage is a division of ACO Technologies plc and part of the worldwide ACO Group. The Group has sales in excess of £700 million worldwide with production facilities in the UK, Germany, France, Switzerland, Denmark, Spain, Poland, Czech Republic, Australia and the USA. In total more than 4200 people are employed in over 40 countries throughout the world.

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- Detailed design and 'Value Engineering' advice.
- Hydraulic calculations and AutoCAD drawings.
- Advice on the suitability of ACO equivalent products.

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collect:
- Stainless Steel and Galvanised Steel Channels
- Stainless Steel Gullies
- Pipe Systems
- Roof / Balcony Drainage
- Wetroom & Shower Drainage

clean:
- Grease Management Systems

hold:
- Anti-flood Backflow Protection Systems

release:
- Lifting Stations

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System overview

ACO Building Drainage TotalFlow Gully (TFG) systems guarantee performance and quality by taking full advantage of the continued investment in the latest technologies in our manufacturing plants, enabling ACO to create modern designs from materials traditionally used for floor drain products.

Significant system advantages:

- Simple design, only 2 parts make up the whole gully
- Integrated design gully body comes complete with Foul Air Trap (FAT) and sealing/seeping ring
- Easy selection separate gully bodies for waterproofing membrane applications
- Modern manufacturing process leads to compact and lighter products
- Ease of installation by push fit connection between the gully top and the gully body
- Efficient cleaning as FAT is easy to remove
- Tested and classified to BS EN 1253
- Push fit gully tops for fast assembly on-site
- Wide choice in gully tops complete with gratings, in different materials to suit extensive range of applications
- Dedicated gully bodies with bonding and clamping flanges, easy selection and more suited to the requirements for waterproofing applications

Optional benefits:

- Easy installation with fit-in kit enabling fast mortar-free installation
- Seepage feature achieved in ring design ensuring drainage in combination with waterproofing membranes
- Odour and smoke protection
- Fire protection

The ACO TotalFlow Gully is manufactured from the more traditional materials, like cast iron and nickel-bronze, those are non-flammable, robust and durable. The ACO TFG system has been designed to complement the range of High Performance Products ACO offers for specialist applications.

Cast Iron, Nickel Bronze and Stainless Steel contributes to a sustainable environment and are 100 % recyclable if products are ever removed or come to the end of their working life



Molten cast iron in an electric furnace



Insertion of the sand core



The finished cast: the ACO Passavant floor gully

Applications

The ACO TotalFlow Gully is particularly well suited for use in areas of high pedestrian traffic and is used in a wide range of applications including:

- Shopping Centres
- Supermarkets
- Railway stations
- Leisure centres
- Public buildings
- Hotels
- Sports stadiums
- Airports



Different applications for TotalFlow Gully

ACO TotalFlow Gully

Simple Design – Easy Selection

The TFG exists out of 2 main parts:



1. Gully Body

Made from Cast Iron, comes complete with removable Foul Air Trap (FAT) and sealing/seeping ring.

There are 6 Gully Bodies with 3 different flange types (location, bonding and clamping) with either a horizontal or vertical outlet, making it easier in selecting the right configuration for the application.

TFG Bodies with location flange are supplied with sealing ring. TFG Bodies with bonding or clamping flanges are supplied with seeping ring. The seepage ring is designed to drain the water collected by membranes into the gully body.



2. Gully Top

The Gully Tops for the ACO TotalFlow Gullies come in different materials, sizes and load classes to cover a wide range of applications within the Building Construction Industry.

The gully tops are made out of Nickel-Bronze, stainless steel, cast iron, plastic/metal combination and plastic.



For thicker floors there is the option to use raising pieces.

Sound Protection

Modern buildings need a high level of sound protection. The ACO TotalFlow Gully is manufactured from high density cast iron which provides a high level of sound protection as standard. The components of the ACO TotalFlow Gully are also completely decoupled to isolate noise and deliver the very highest noise protection without the need to specify additional components. This integrated design means our gully can be assembled and installed on-site without the need to incur any additional expenditure on sound reduction technologies.

Technical specification:

- High density cast iron material for optimum sound protection
- Decoupled components which isolate noise
- Noise level LAFmax ≤ 22 dB(A)

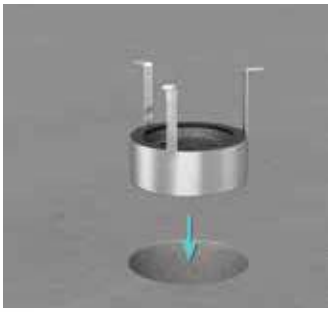


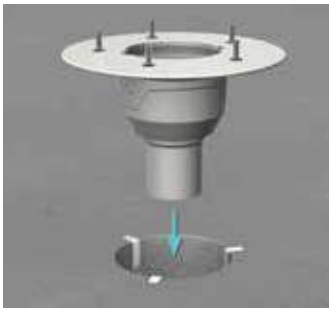
Ease of Installation

ACO continues to investment in manufacturing processes for drain products resulting in modern looking, more compact and lighter Cast Iron products, which makes them easier to handle and install.

The TFG Body and Top are push-fit connected which saves time during assembly on-site.

Assembly and installation of the ACO TotalFlow Gully is simple. With its high compression strength, the gully body can withstand pressure loads on a permanent basis and that means the ACO vertical gully bodies require only one core bore of 160mm in diameter.





Tradesmen can usually drill core bores of up to 160mm diameter with manual core drills, avoiding the need to undertake time-consuming chiselling work.

For vertical gullies, installation can be made as seamless as possible by using the ACO Fit-in installation kit for easy and mortar-free core bore sealing. This eliminates the waiting time associated with concrete formwork, mortar drying and delays in connecting pipelines. ACO floor gullies can also be installed directly into the concrete ceiling to reduce installation time further.

Technical specification:

- Quick and simple installation via a 160mm core bore
- The optional ACO Fit-in installation kit makes it even easier to install combined with a mortar-free core-bore sealing

Easy Cleaning & Maintenance

Removing the Foul Air Trap from the ACO TotalFlow Gully is simple because of the twist and pull lock design. This makes cleaning and maintenance a relatively quick and easy process, and minimises associated costs.

Durability & Sustainability

Manufactured from cast iron in our purpose-built facilities, the ACO TotalFlow Gully provides long-term durability and virtually zero maintenance as standard. Cast iron is completely recyclable.

Technical specification:

- High compressive strength
- Expansion coefficient similar to concrete

Surface Finish

The surface of the ACO TotalFlow Gully body is painted for protection against handling and during installation.

Load Class and wheel loads

The ACO TotalFlow Gully system conforms to the European standards so specifiers and installers can be confident that products will consistently achieve a known level of performance. To minimise the risk of floor/drainage connection failures, ACO advises users to avoid having traffic cross the drainage whenever possible and to ensure the correct load class of grating is specified to deal with current and future traffic requirements.

The ACO Cast Iron Gully systems have been tested in accordance with BS EN 1253. The table below indicates a practical approximate comparison of Load Classes of different norms and trade association to aid specifiers select products appropriate to an application.

Application	EN 1433 (Drainage Channels) & EN 124 (Manhole & Gully Tops)	EN 1253 (Gullies for Buildings)	FACTA Load Class	Slow Moving Wheel Load (Tonnes)	
				Pneumatic Tyres	Solid Tyres
	–	H1.5	–	Non-load bearing	
	A15	K3	–	0.15	N/A
		–	A	0.5	N/A
		L15	–	0.7	N/A
		–	AA	1.5	N/A
	B125	R50	AAA	2.5	0.5
		M125	B	5.0	0.75
	C250	N250	C	6.5	1.0
	D400	P400	D	11.0	3.0
	E600	–	E	16.0	5.0

Standards references:

BS EN 1253 – Gullies for buildings.
BS EN 1433 - Drainage channels for vehicular and pedestrian areas.

Other useful references:

BS EN 124 – Gully tops and manhole tops for vehicular pedestrian areas.
FACTA specification via http://www.facta.org.uk/specification.pdf

ACO TotalFlow Gullies – Accessories

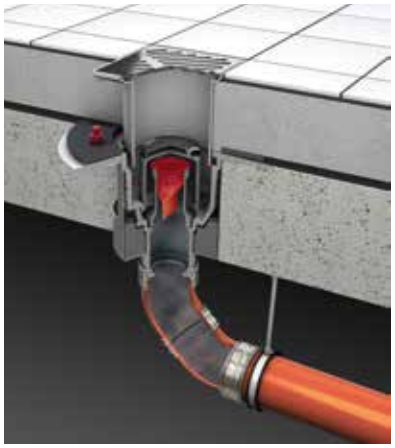
Odour protection

ACO's TotalFlow Gully design ensures that a minimum of 55mm water is stored in the floor gully to act as a safety barrier between the floor and the sewerage system. For applications where the gully is not in regular use and the water storage in the gully is not regularly replenished or where it can be depleted by evaporation, a self-cleaning odour and smoke block can also be specified.

A highly flexibility membrane which closes access to the sewers and only opens when water runs into it, this membrane prevents unpleasant odours and smoke migrating from the drainage into a building or surrounding area while preserving the functionality of the gully.

Technical specification:

- Odour sealed without a water seal
- Can be retro-fitted as required
- Self-cleaning



Fire protection

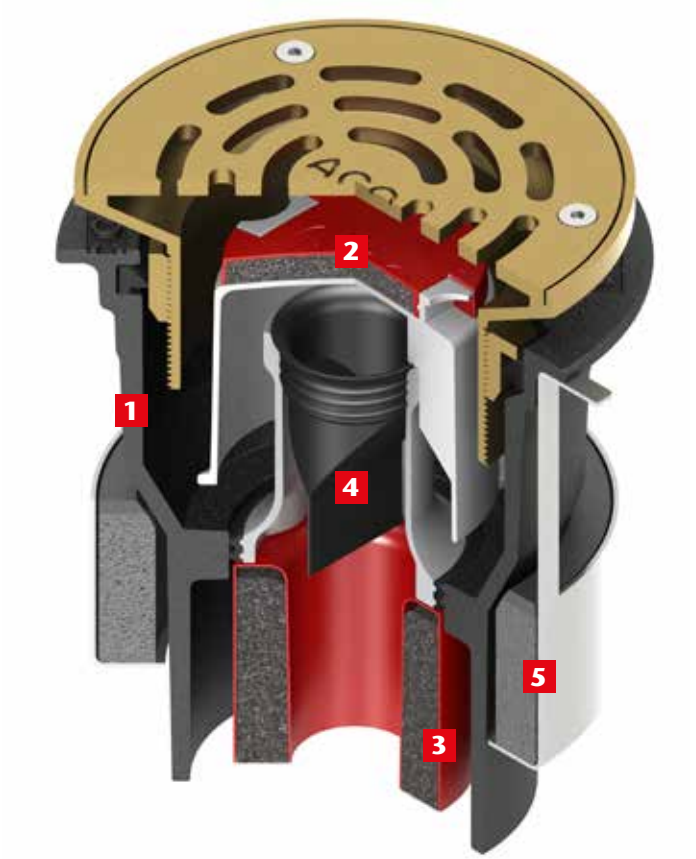
ACO TotalFlow Gullies have a high building classification because of the Cast Iron. For the vertical gullies ACO can provide additional fire protection features with a fire protection kit, existing out of FAT with a heat shield and fire protection cartridge placed in the outlet of the gully. Optimal fire protection of the Gully System is maintained when choosing a Gully Top made from metal.

Technical specification:

- Non-combustible material with a melting point of 1,150°C
- Fire protection with smoke block, without any water seal
- Fire protection from above and below (R 30 – R 120)
- Suitable for use with a ceiling thickness of 100mm or above

The complete fire protection is achieved through the interaction of five core components:

1. The gully body is made from Cast Iron which is defined as a class A1 (non-flammable) material.
2. The foul air trap with heat shield – which automatically seals against fire and smoke in the event of fire exposure from above
3. The fire protection cartridge in the outlet socket – which is automatically activated when a fire occurs below the ceiling to prevent fire and smoke from entering the next storey
4. The smoke block – which prevents fire/ smoke from spreading if the water storage has been depleted
5. The ACO Fit-in installation kit – which is used for core bores



Specification and Product Selection Considerations

The steps below guide customers through the ACO TFG product selection and specification ensuring that all application considerations are covered. The ACO Building Drainage Team can also provide a bill of materials and estimating service based on your plan details.

Step 1 – Product application

Application	ACO product recommendation	Product Considerations
General commercial	ACO TotalFlow Gully	- 1.6 l/s for horizontal gully - 2.0 l/s for vertical gully - dia 110 mm vertical or horizontal outlet
All other applications	Contact the ACO Building Drainage Enquiries Team on 01462 810421 or e-mail abdestimating@aco.co.uk	

Step 2 – Floor finish

Ceramic/screed	Vinyl/flexible	Thin-bed
		
For tiled, resin screed or cementitious flooring	Mechanical clamp for reliable connection to vinyl flooring	For thin bed applications or tanked flooring requiring membrane

Step 3a – Floor composition

No waterproofing membrane	With waterproofing membrane	
Height adjustable – location flange	**Height adjustable – bonding flange**	**Height adjustable – clamping flange**
		
■ Use with gully tops ■ Adjustable height and full rotation of the gully top ■ Ideal for applications where final floor height unknown ■ Suitable for areas where waterproofing is independent of the gully body	■ Waterproofing connection by welding or adhesive bonding ■ Use with gully tops ■ Adjustable height and full rotation of the gully top ■ Ideal for applications where final floor height unknown	■ Waterproofing connection by mechanical clamping flange ■ Use with gully tops ■ Adjustable height and full rotation of the gully top ■ Ideal for applications where final floor height unknown

Step 3b – Floor composition requires raising rings, with or without extra inlet

Telescopic adjustable – location flange	Telescopic adjustable – location flange	Telescopic adjustable – location flange with side inlet
		
■ Use with gully tops ■ Adjustable height and full rotation ■ Increases overall height ■ Stainless steel for fire-resistant application	■ Use with gully tops ■ Adjustable height and full rotation of the gully top ■ Increases overall height	■ Use with gully tops ■ Adjustable height and full rotation of the gully top ■ Increases overall height ■ Extra side inlet for extra drain

Step 4 – Connection orientation

Establish the location, size, orientation and invert depth (if appropriate) of slab/screed pipework as this will determine the type of gully.

Vertical outlet	Horizontal outlet
	

Step 5 – Load class requirements and grating options

Description	Helpful hints	General consideration
■ Determine appropriate Load Class to BS EN 1253 and BS EN 124 for the application	■ Always allow for the highest loading and consider future use where possible ■ For industrial applications where pallets trucks and fork lift trucks may access the system, assess the vehicle wheel loads as these can vary depending on the vehicle	■ Vehicles with solid tyres impart greater stress on the gratings compared to pneumatic tyres ■ Do not use slip resistant gratings in vehicle turning areas

Step 6 – Flow rate requirement

An important factor in the selection of the correct gully is the required flow rate. Flow rate is affected by several factors such as:

- Size and height of the gully body
- Use of silt basket, odour prevention and sieves
- Overall assembly height
- Outlet orientation

Product Range	Horizontal Gullies	Vertical Gullies
General commercial	0 to 1.6 l/s	0 to 2.0 l/s

ACO TotalFlow Gully

Product Range Overview

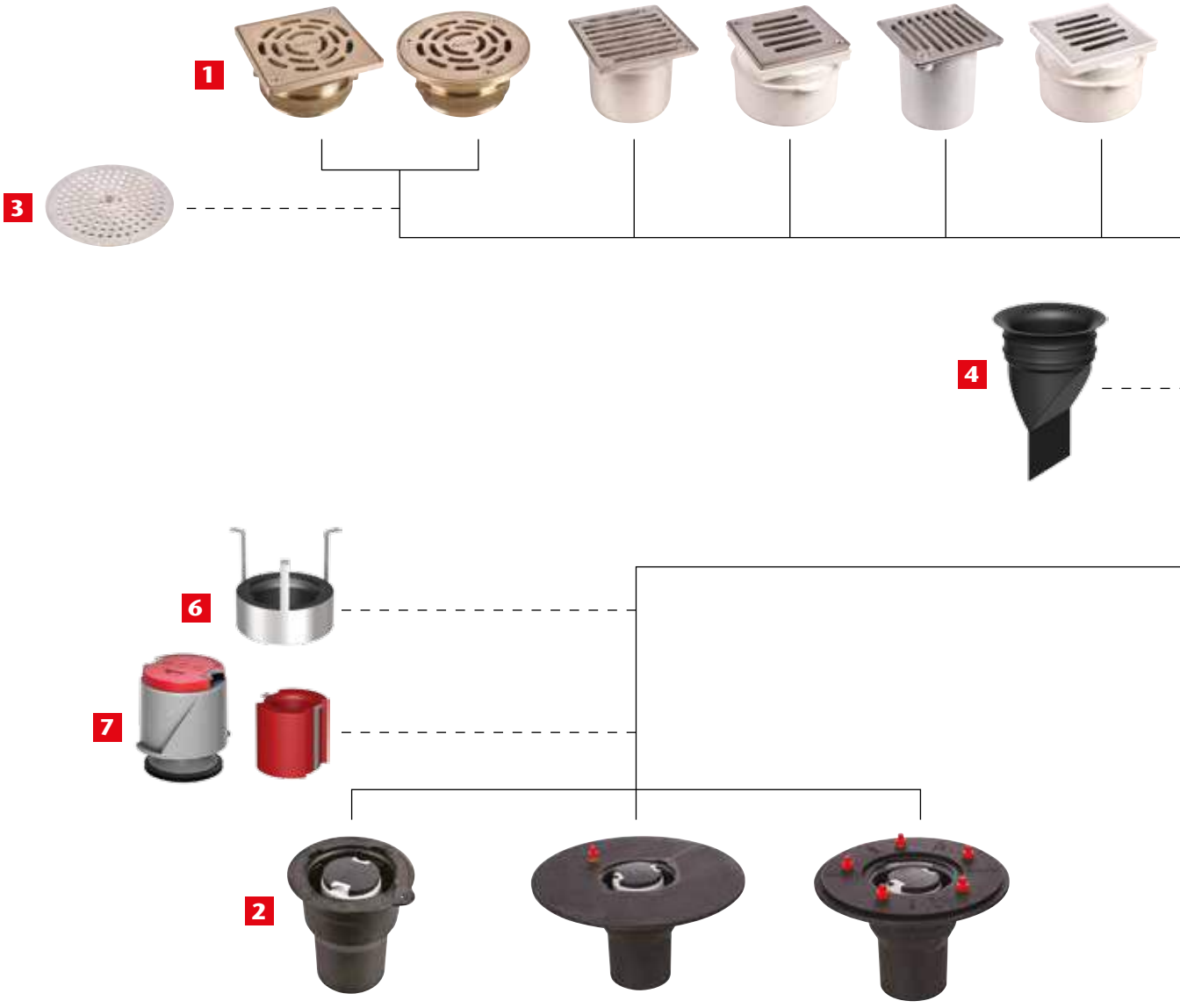
1 TotalFlow Gully Tops
2 TotalFlow Gully Body for height adjustable Gully Tops
3 Round Sieve
4 Odour and smoke block
5 TotalFlow Extensions
6 Fit-in kit
7 Fire protection kit

ACO TotalFlow Gullies are designed to be used in applications where robustness, durability and performance requirements are paramount. The TotalFlow range comprises of a variety of different product choices, which ACO has tried to keep as simple as possible.

The floor construction and depth, together with the use of any waterproofing membrane play an important role in the selection of the appropriate type of gully.

As shown below there are 3 generic gully configurations available with either a horizontal or vertical outlet.

All gully systems are push fit and height adjustable, either telescopically or threaded. Extensions can be used to increase the height of the gully system to accommodate for thicker floor constructions.

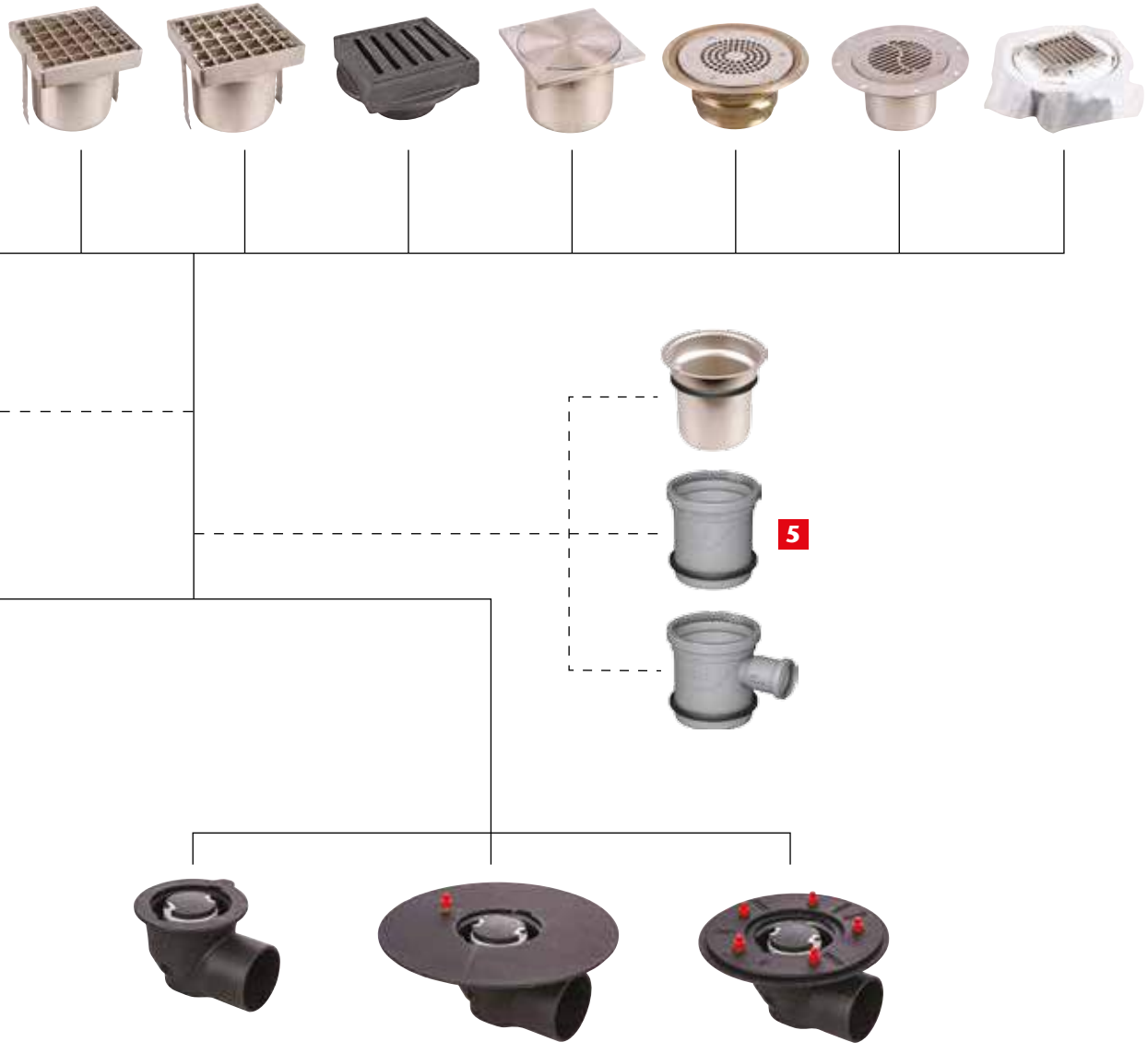


ACO TotalFlow - Benefits

End user benefits:
- Fully compliant to BS EN 1253
- Easy and low cost cleaning
- Robust design of the gully body for durability and long life
- Wide choice of gully tops, inclusive slip resistant gratings for user safety
- Optional odour and smoke prevention
- Optional fire protection kit
- High density cast iron and decoupled components for optimum sound protection

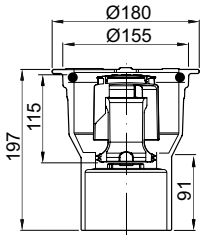
Contractor benefits:
- Compact and light design makes it easier to install gully body.
- Easy to push fit gully top reduces installation time
- Quick and reliable flange connection for waterproofing membrane
- Bonding and clamping gully bodies come standard with seeping ring
- Optional fit-in kit for quick, mortar-free installation of the vertical gully reduces waiting time as there is no mortar to set
- Easy installation for all floor types – ceramic tiles, cementious, resin screeds and vinyl

Specifier benefits:
- Carefully constructed assemblies makes for easy product selection
- Fully compliant to BS EN 1253
- Compact design of the gully results in low construction height
- Robust design and use of strong materials provides for a durable and long-lasting product
- Wide range of gully tops for load classes up to M125
- Slip resistant gratings provide user safety
- Dedicated waterproofing gully designs, with seepage provision standard for easy selection
- Optional fire protection kit
- Suitable for all floor types - ceramic tiles, cementious, resin screeds and vinyl



ACO TFG - Bodies



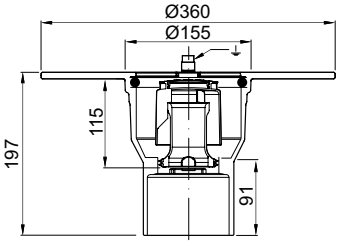




Incl. FAT

Part no	Description	Flange dia (mm)	Body dia (mm)	Height (mm)	Spigot dia (mm)	Flow rate (l/s)	Weight (kg)
106115	TotalFlow Gully, Vertical Outlet, Seal ring, Cast Iron, Location Flange, Painted	180	156	197	110	2.0	4.6



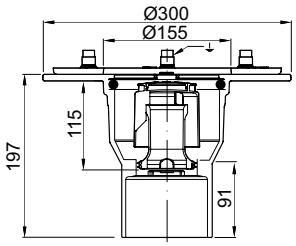




Incl. FAT

Part no	Description	Flange dia (mm)	Body dia (mm)	Height (mm)	Spigot dia (mm)	Flow rate (l/s)	Weight (kg)
106116	TotalFlow Gully, Vertical Outlet, Seep Ring, Cast Iron, Location Flange, Painted	360	156	197	110	2.0	4.6



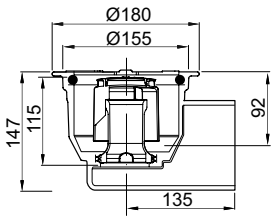




Incl. FAT

Part no	Description	Flange dia (mm)	Body dia (mm)	Height (mm)	Spigot dia (mm)	Flow rate (l/s)	Weight (kg)
106117	TotalFlow Gully, Vertical Outlet, Seep Ring, Cast Iron, Clamping Flange, Painted	300	156	197	110	2.0	9.3



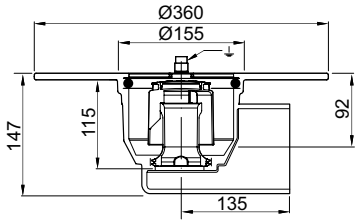




Incl. FAT

Part no	Description	Flange dia (mm)	Body dia (mm)	Height (mm)	Spigot dia (mm)	Flow rate (l/s)	Weight (kg)
106118	TotalFlow Gully, Horizontal Outlet, Seal ring, Cast Iron, Location Flange, Painted	180	156	147	110	1.6	5.3



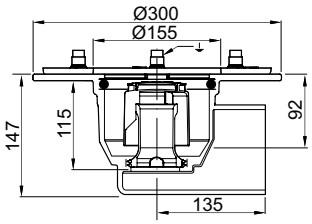




Incl. FAT

Part no	Description	Flange dia (mm)	Body dia (mm)	Height (mm)	Spigot dia (mm)	Flow rate (l/s)	Weight (kg)
106119	TotalFlow Gully, Horizontal Outlet, Seep Ring, Cast Iron, Location Flange, Painted	360	156	147	110	1.6	8.9





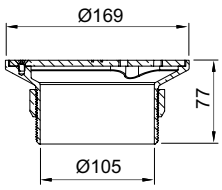


Incl. FAT

Part no	Description	Flange dia (mm)	Body dia (mm)	Height (mm)	Spigot dia (mm)	Flow rate (l/s)	Weight (kg)
106120	TotalFlow Gully, Horizontal Outlet, Seep Ring, Cast Iron, Clamping Flange, Painted	300	156	147	110	1.6	9.5

ACO TFG - Tops

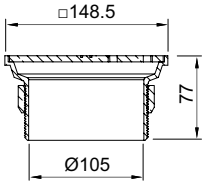






Part no	Description	Material	Top side (mm)	Overall Depth (mm)	Grating Depth (mm)	Load class	Grating top side (mm)	Height adj. range (mm)	Total weight (kg)
106113	TotalFlow Gully top, round, height adjustable, incl screwed grating	Nickel bronze	Ø169	77	5.5	L15	Ø160	20	2.5

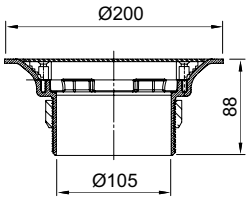


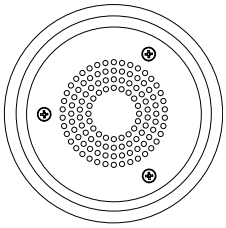




Part no	Description	Material	Top side (mm)	Overall Depth (mm)	Grating Depth (mm)	Load class	Grating top side (mm)	Height adj. range (mm)	Total weight (kg)
106112	TotalFlow Gully top, square, height adjustable, incl screwed grating	Nickel bronze	□ 148.5	77	5.5	L15	□ 140	20	2.4

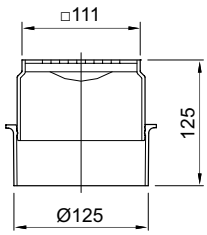


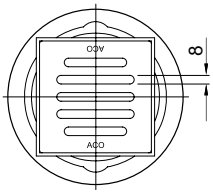




Part no	Description	Material	Top side (mm)	Overall Depth (mm)	Grating Depth (mm)	Load class	Grating top side (mm)	Height adj. range (mm)	Total weight (kg)
106121	TotalFlow Gully top, round, height adjustable, incl clamp ring for vinyl applications and screwed grating	Nickel bronze Grating: SS 304	Ø200	88	2	K3	Ø157	20	2.4

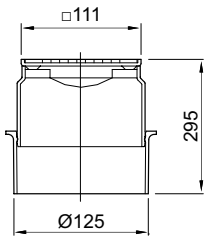


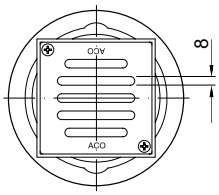




Part no	Description	Material	Top side (mm)	Overall Depth (mm)	Grating Depth (mm)	Load class	Grating top side (mm)	Height adj. range (mm)	Total weight (kg)
106021	TotalFlow Gully top, telescopic, plastic housing and rim, incl loose slot grating	House: Plastic Grating: SS 304	□ 111	125	5	K3	□ 104	65	0.4

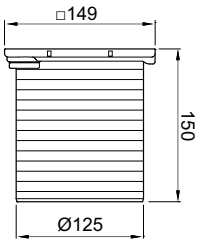


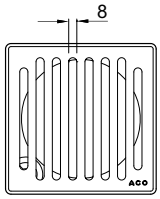




Part no	Description	Material	Top side (mm)	Overall Depth (mm)	Grating Depth (mm)	Load class	Grating top side (mm)	Height adj. range (mm)	Total weight (kg)
106102	TotalFlow Gully extended top, telescopic, plastic housing and S/S rim, incl screwed, slot grating	House: Plastic + SS304 rim Grating: SS 304	□ 111	295	5	K3	□ 104	225	0.6

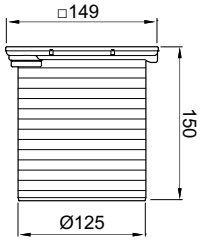


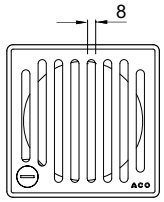




Part no	Description	Material	Top side (mm)	Overall Depth (mm)	Grating Depth (mm)	Load class	Grating top side (mm)	Height adj. range (mm)	Total weight (kg)
106023	TotalFlow Gully top, telescopic, plastic housing with S/S rim, incl loose slot grating	House: Plastic + SS304 rim Grating: SS 304	□ 149	150	5	K3	□ 140	85	0.7

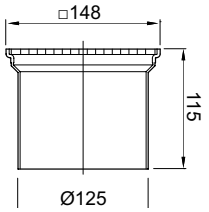


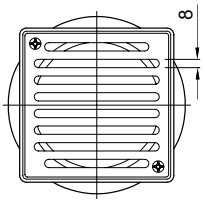




Part no	Description	Material	Top side (mm)	Overall Depth (mm)	Grating Depth (mm)	Load class	Grating top side (mm)	Height adj. range (mm)	Total weight (kg)
106025	TotalFlow Gully top, telescopic, plastic housing with S/S rim, incl lockable grating	House: Plastic + SS304 rim Grating: SS 304	□ 149	150	5	K3	□ 140	85	1.8

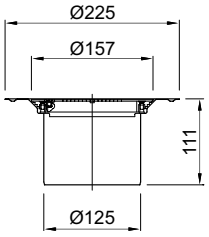


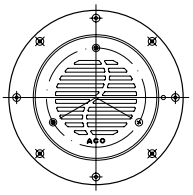




Part no	Description	Material	Top side (mm)	Overall Depth (mm)	Grating Depth (mm)	Load class	Grating top side (mm)	Height adj. range (mm)	Total weight (kg)
106026	TotalFlow Gully top, S/S, telescopic, incl screwed slot grating	SS 304	□ 148	115	5	K3	□ 140	50	1.9

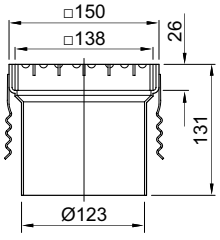


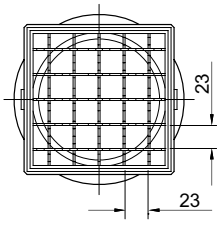




Part no	Description	Material	Top side (mm)	Overall Depth (mm)	Grating Depth (mm)	Load class	Grating top side (mm)	Height adj. range (mm)	Total weight (kg)
106028	TotalFlow Gully top, S/S, telescopic, incl clamp ring and slot grating	SS 304	Ø225	111	2	K3	Ø157	50	0.9

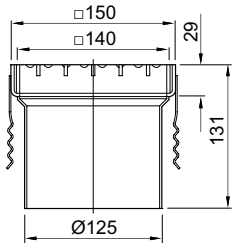


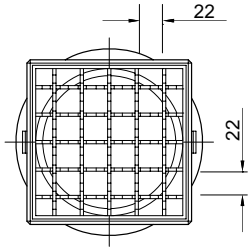




Part no	Description	Material	Top side (mm)	Overall Depth (mm)	Grating Depth (mm)	Load class	Grating top side (mm)	Height adj. range (mm)	Total weight (kg)
106029	TotalFlow Gully top, S/S, telescopic, incl loose, slip resistant mesh grating	SS 304	□ 150	131	25	L15	□ 142	50	1.9

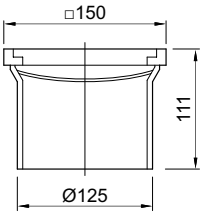


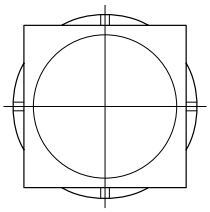




Part no	Description	Material	Top side (mm)	Overall Depth (mm)	Grating Depth (mm)	Load class	Grating top side (mm)	Height adj. range (mm)	Total weight (kg)
106030	TotalFlow Gully top, S/S, telescopic, incl loose, heavy-duty, slip resistant grating	SS 304	□ 150	131	25	M125	□ 142	50	2.2

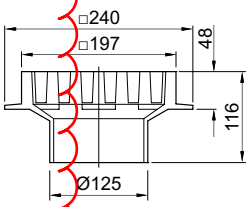


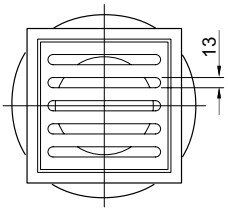




Part no	Description	Material	Top side (mm)	Overall Depth (mm)	Grating Depth (mm)	Load class	Grating top side (mm)	Height adj. range (mm)	Total weight (kg)
106100	TotalFlow Gully top, S/S, telescopic, incl sealed solid grate and sieve	SS 304	□ 150	111	9	L15	Ø136	50	2.8

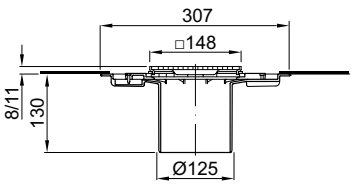


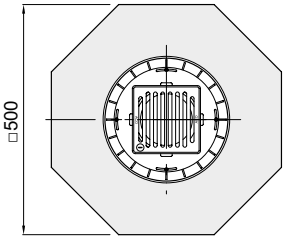




Part no	Description	Material	Top side (mm)	Overall Depth (mm)	Grating Depth (mm)	Load class	Grating top side (mm)	Height adj. range (mm)	Total weight (kg)
106101	TotalFlow Gully top, Cast Iron, incl slotted grating	Cast Iron	□ 197	116	35	M125	□ 170	5	11.5



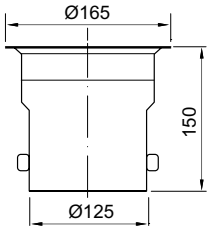




Part no	Description	Material	Top side (mm)	Overall Depth (mm)	Grating Depth (mm)	Load class	Grating top side (mm)	Height adj. range (mm)	Total weight (kg)
106106	TotalFlow Gully top, plastic housing with S/S rim with membrane, incl lockable slot grating	House: Plastic + SS304 rim Grating: SS 304	Membrane 500 Flange Ø307 Frame □ 148	141	5	K3	□ 140	68	1.7

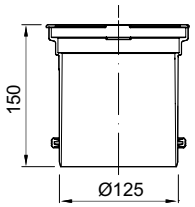
ACO TFG - Raising Pieces





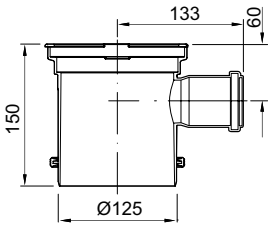
Part no	Description	Material	Width overall (mm)	Depth overall (mm)	Max extension depth (mm)	Weight (kg)
106103	TotalFlow Gully S/S raising piece, with seal ring	SS 304	Ø165	150	110	0.5





Part no	Description	Material	Width overall (mm)	Depth overall (mm)	Max extension depth (mm)	Weight (kg)
106104	TotalFlow Gully raising piece, plastic with sealing ring	Plastic	Ø147	150	110	0.17

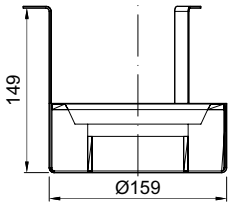




Part no	Description	Material	Width overall (mm)	Depth overall (mm)	Max extension depth (mm)	Weight (kg)
106105	TotalFlow Gully raising piece with side inlet, plastic, incl sealing ring	Plastic	Ø147	150	110	0.24

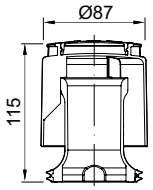
ACO TFG - Accessories and Spare Parts





Part no	Description	Material	Length (mm)	Width overall (mm)	Depth overall (mm)	Flow rate (l/s)	Weight (kg)
106010	Fit-in installation kit	S/S 304	-	Ø159	149	-	2.5



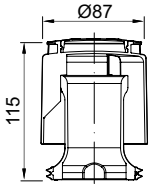


Part no	Description	Material	Length (mm)	Width overall (mm)	Depth overall (mm)	Flow rate (l/s)	Weight (kg)
106006	Foul Air Trap	Plastic	-	Ø87	115	-	0.12



Part no	Description	Material	Length (mm)	Width overall (mm)	Depth overall (mm)	Flow rate (l/s)	Weight (kg)
106020	Odour and smoke block	Rubber	-	Ø50	80	-	0.02

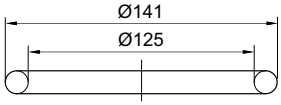






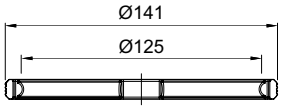
Part no	Description	Material	Length (mm)	Width overall (mm)	Depth overall (mm)	Flow rate (l/s)	Weight (kg)
106009	Fire protection kit, includes Foul Air Trap (red) and fire cartridge	Plastic	-	Ø87	115	-	0.4





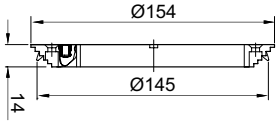
Part no	Description	Material	Length (mm)	Width overall (mm)	Depth overall (mm)	Flow rate (l/s)	Weight (kg)
106007	Sealing ring (black)	EPDM	-	Ø87	8	-	0.03





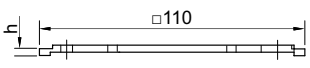
Part no	Description	Material	Length (mm)	Width overall (mm)	Depth overall (mm)	Flow rate (l/s)	Weight (kg)
106008	Seeping ring (grey)	EPDM	-	Ø87	8	-	0.03





Part no	Description	Material	Length (mm)	Width overall (mm)	Depth overall (mm)	Flow rate (l/s)	Weight (kg)
E15969	Clamping ring	Plastic	-	Ø154	14	-	





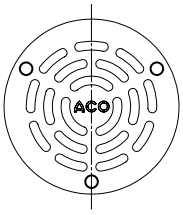
Part no	Description	Material	Length (mm)	Width overall (mm)	Depth overall (mm)	Flow rate (l/s)	Weight (kg)
106107	Top Frame Spacer, 3mm	Plastic	-	-	-	-	0.01
106108	Top Frame Spacer, 9mm	Plastic	-	-	-	-	0.03





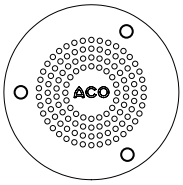
Part no	Description	Load Class	Length (mm)	Width (mm)	Depth (mm)	Flow rate (l/s)	Weight (kg)
106015	TotalFlow Gully - Nickel Bronze square grate (only)	L15	140	140	5.5	-	0.64





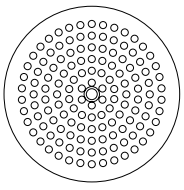
Part no	Description	Load Class	Length (mm)	Width (mm)	Depth (mm)	Flow rate (l/s)	Weight (kg)
106016	TotalFlow Gully - Nickel Bronze round grate (only)	L15	-	Ø161	5.5	-	0.66

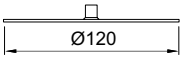




Part no	Description	Load Class	Length (mm)	Width (mm)	Depth (mm)	Flow rate (l/s)	Weight (kg)
401185	TotalFlow Gully - S/S304 round grating (only), perforated	K3	-	Ø157	2	-	0.26

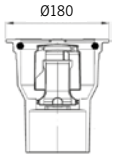
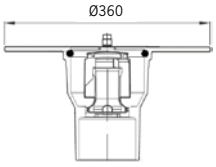
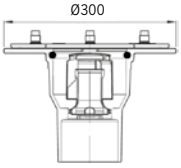
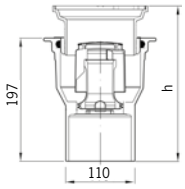
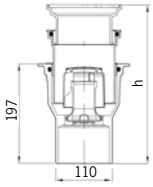
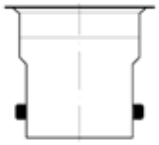
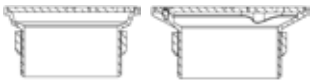
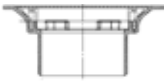
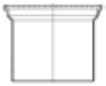
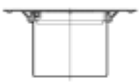






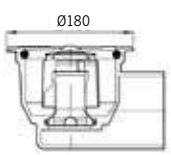
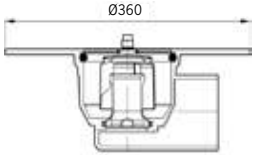
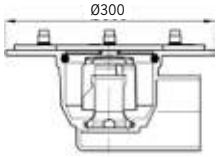
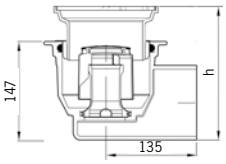
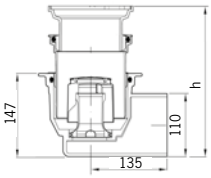
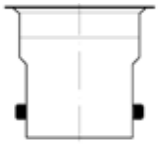
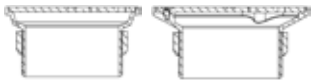
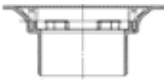
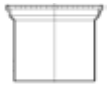
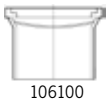
Part no	Description	Load Class	Length (mm)	Width (mm)	Depth (mm)	Flow rate (l/s)	Weight (kg)
106017	TotalFlow Gully - S/S304 round sieve	K3	-	Ø87	2	-	0.1

Construction Height - Vertical Gully

TFG Body	 106115		 106116		 106117	
TFG Assembly						
TFG Raising piece	None		 106103		 106104	
TFG Top	**H Min**	**H Max**	**H Min**	**H Max**	**H Min**	**H Max**
 106112 106113	222	247	291	362	301	372
 106121	233	258	302	373	312	383
 106021	215	296	308	406	318	416
 106102	372*	468	482*	573	492	583
 106023 & 106025	277*	327	346*	392	356	402
 106026	243	293	312	358	322	368
 106028	237	287	306	352	316	362
 106029 & 106030	259	309	328	374	338	384
 106100	236	286	305	351	315	361

* Minimum height can be reduced further by cutting the plastic gully top and/or raising piece

Construction height

TFG Body	 106118		 106119		 106120	
TFG Assembly						
TFG Raising piece	None		 106103		 106104	
TFG Top	**H Min**	**H Max**	**H Min**	**H Max**	**H Min**	**H Max**
 106112 106113	172	197	241	312	261	321
 106121	183	208	252	323	262	332
 106021	165	246	258	356	268	366
 106102	322*	418	432	523	442	533
 106023 & 106025	227*	277	296	342	306	352
 106026	193	243	262	308	272	318
 106028	187	237	256	302	266	312
 106029 & 106030	209	259	278	324	288	334
 106100	186	236	255	301	265	311

* Minimum height can be reduced further by cutting the plastic gully top and/or raising piece

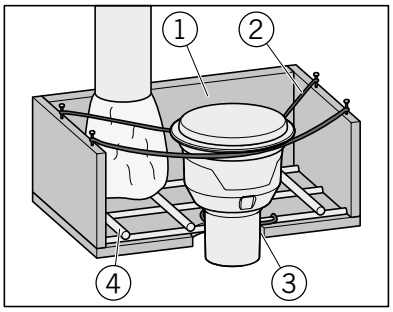
Installing the Vertical Floor Drain with Location or Bonding Flange

On account of the different surface structures and product combinations, there are numerous installation options. The example shown here therefore refers to a common installation situation and illustrates the basic sequence of installation.

Installation situation: Low ceiling thickness, core bore.
Product(s): ACO DN 100 vertical floor drain with location, bonding and clamping

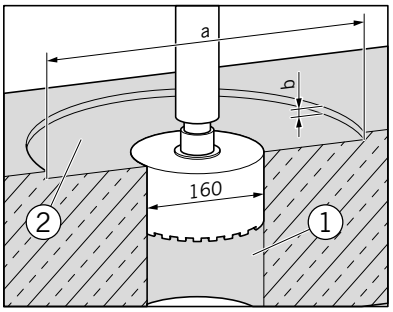
When a floor drain with a horizontal outlet is to be installed, a recess is required instead of a core bore.

CAUTION To ensure correct functioning, clean the sealing elements before installation.



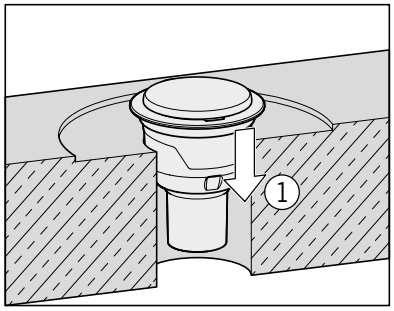
Creating a recess:

- Create shuttering (recess) for outlet socket (3). Dimensions.
- Fix the floor drain on the reinforcement (4) with binding wire (2) in such a way that the top edge of the adhering flange (floor drain) is flush with the concrete floor.
- Seal the floor drain completely with concrete (1).

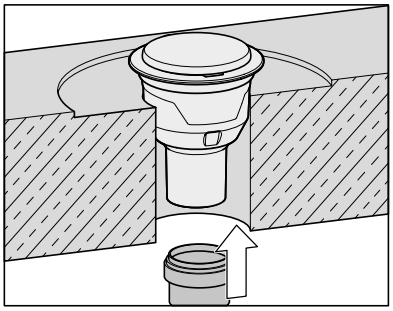


Drilling the core bore:

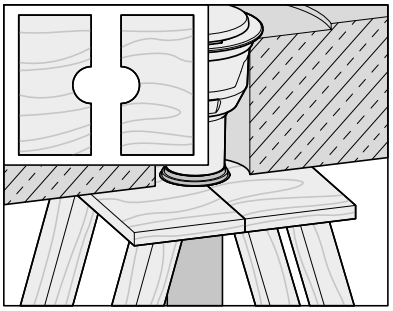
- Drill the core bore (∅ 160 mm) (1).
- Drill the upper core bore.
- Chip away the edge of the bore.
- Clean the ceiling opening of coarse dirt and dampen it.



- Insert the floor drain in the core bore (1).



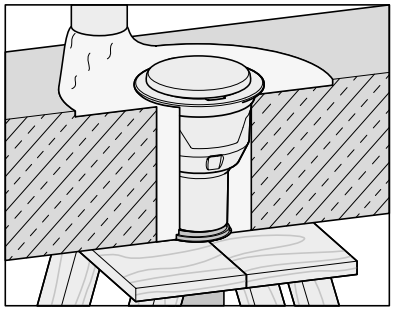
- Push the drainage line through from below and connect to the outlet socket of the floor drain.



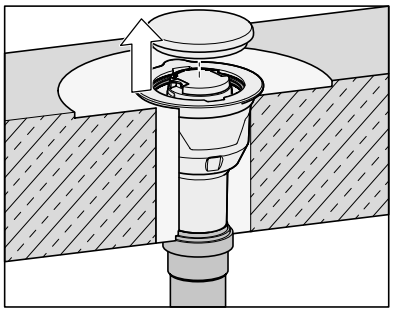
- Seal the core bore from below so that the cavities can be filled from above.

Recommended procedure:

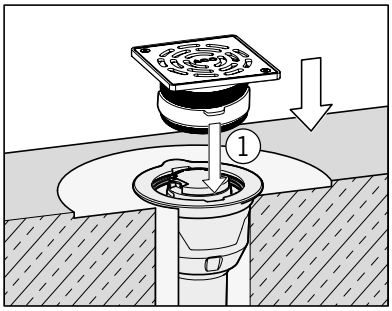
- Saw a hole with the diameter of the drainage line out of a board.
- Saw the board into two halves.
- Place the two halves of the board around the drainage line.
- Wedge the two halves of the board in position using wooden bars.



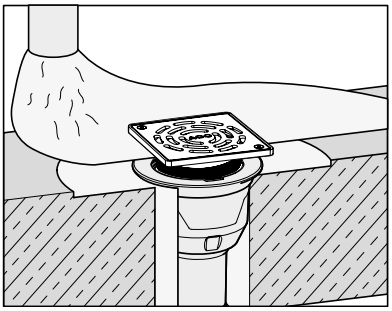
- Fill the cavities from above, e.g. with gypsum binder, MG II, II A or III mortar, cream binder or a mixture of pure sands.



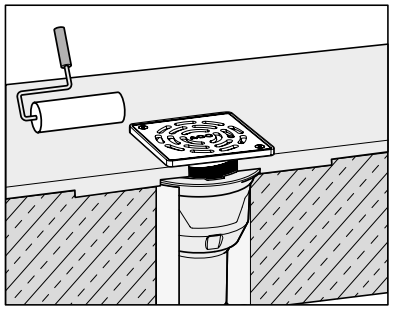
- Remove the board after setting.
- Check the filling after setting. Fill up any cavities that were created during setting.
- Remove the protective cover used during the construction period.



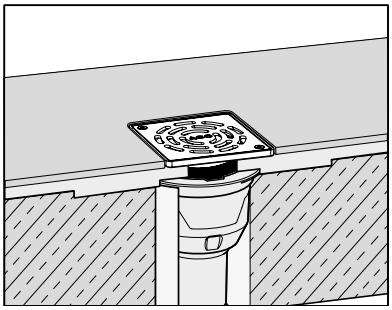
- Adjust the threaded insert to approx. intended height of screed and resin/ tile.
- Align tabs of the threaded insert with the recess in the gully body. (1)



- Check if the height of the gully corresponds with intended height of screed plus resin/tile (if necessary, rotate he gully top to achieve the correct height).
- Apply mortar to the entire surface of the underside.

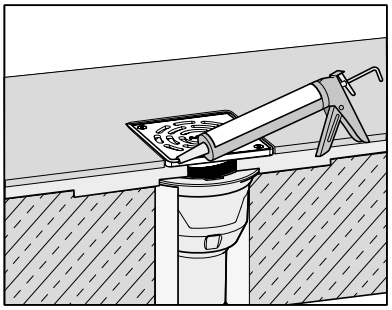


- Apply the compound seal, e.g. with a roller. Observe the manufacturer's instructions.

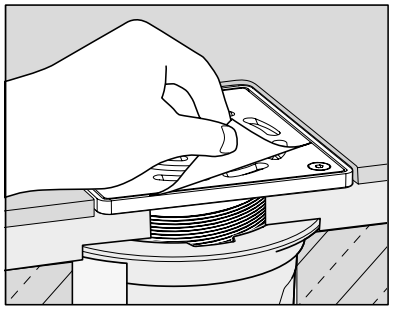


Applying a floor covering, e.g. floor tiles:

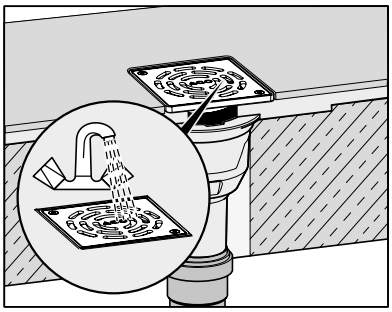
- Apply the substrate (e.g. plaster, jointless flooring, tile adhesive). Observe the manufacturer's instructions.
- Lay the tiles or pour the resin.



- Seal the top section with elastic sealing material, e.g. silicone.



- Remove the plastic film.



Completing the work:

- Fill the drain with clean water.

Notes

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- ACO Building Drainage
- ACO Water Management
  Civils + Infrastructure
  Urban + Landscape
- ACO Sport
- ACO Wildlife

ACO Building Drainage

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