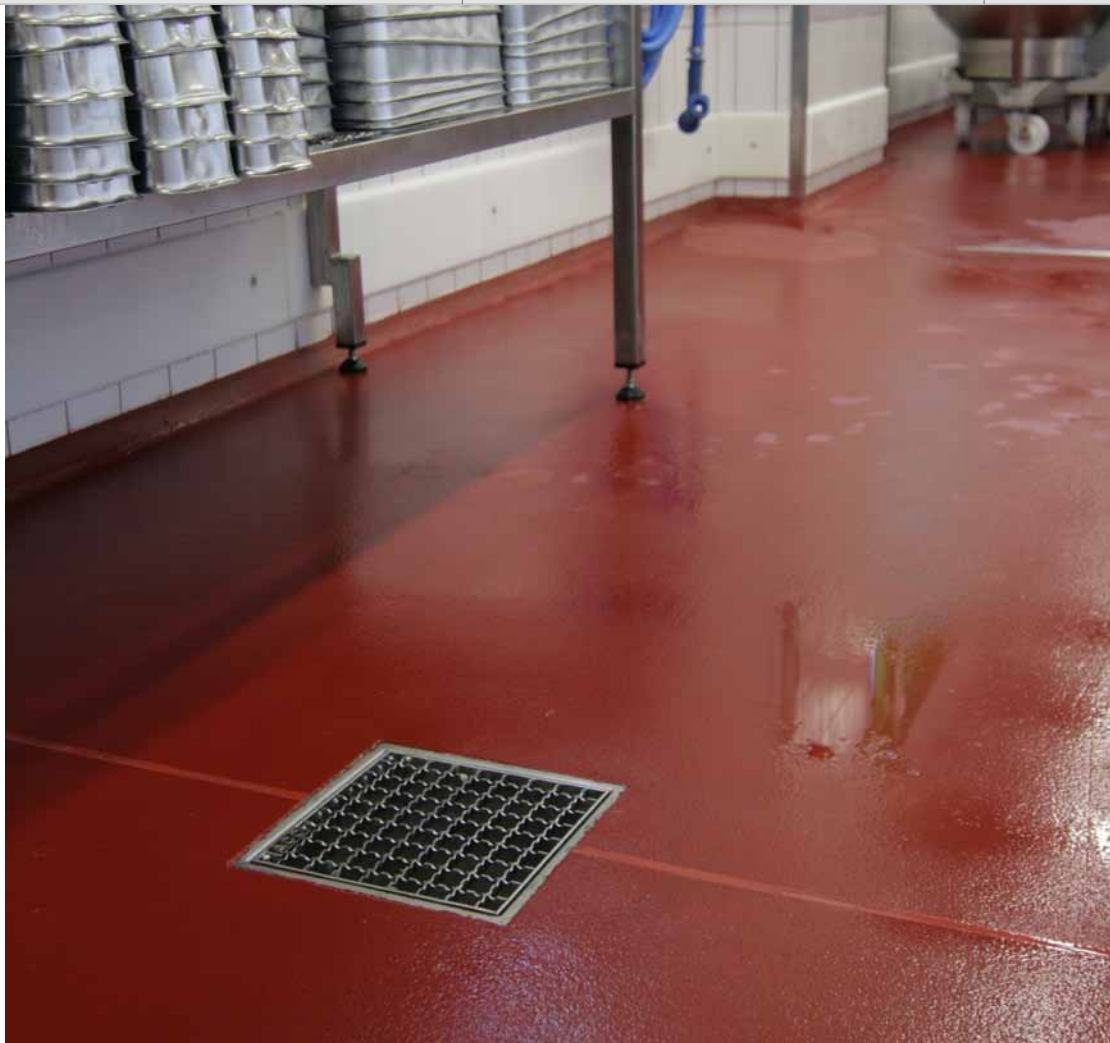


ACO Point Drainage



ACO Product catalogue

ACO InDrain® gully

- **ACO InDrain® gully 157**
- **ACO InDrain® gully 218**



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General introduction

Introduction

Applications for ACO stainless steel gullies include:

- Kitchens
- Food processing factories
- Brewing, bottling and canning plant
- Chilled warehouses
- Laboratories
- Chemical and pharmaceutical industries
- Leisure industries
- Human and animal healthcare

ACO stainless steel gullies are used in applications where hygienic, corrosion resistance and durable performance are essential.



Why stainless steel?

Stainless steel has the following unique advantages:

- Highly corrosion resistant
- Non-porous, easy to clean and disinfect
- Aesthetically pleasing
- Resistant to temperature extremes and thermal shock
- Coefficient of linear expansion similar to concrete
- 100% recyclable material

All ACO InDrain® gullies are manufactured from austenitic stainless steel grades 1.4301 (304) or 1.4404 (316L) to EN 10088.

EN 10088	AISI
1.4301	304
1.4404	316L

Why ACO stainless steel gullies?

As the largest producer of stainless steel drainage systems ACO has the knowledge, experience and expertise to offer the optimal drainage solutions for every application.

Therefore ACO offers the designer the freedom to choose from a standard range of products as well as bespoke solutions to suit any application.

Also the ACO stainless steel gullies can be combined with ACO's linear stainless steel drainage channel program.

Surface treatment of stainless steel

The process of cutting, forming and welding of stainless steel will introduce impurities into the surface of the material and unless the appropriate action is taken, the material will begin to corrode and ultimately fail in service. Therefore after fabrication into the final product, it is vital that the stainless steel material is treated with the correct surface treatment to ensure the material is fully corrosion resistant. By applying pickle passivation as the primary surface treatment, the corrosion resistance of stainless steel can be fully restored to its original state, ensuring long and reliable life performance together with the required aesthetic appearance.

Finishes used by ACO include:

- Pickle passivation (acid treatment)

All ACO gullies are pickle passivated by immersing them in a series of acid baths. This is a fundamental requirement for removing embedded iron particulates introduced in the fabrication process and also restoring the chromium depleted regions generated by the welding process. ACO has one of the largest and modern pickle passivation installations in Europe which ensures the optimum corrosion resistance of our products.
- Electropolishing (electrochemical process)

After pickle passivation, some products are then immersed in an electrolytic fluid in which the products become the anode of a direct current electrical circuit. This process is characterized by the selective attack on the surface of the components whereby upstanding roughness is preferentially dissolved and will yield a progressively smoother, brighter surface.
- Linishing (mechanical process)

ACO InDrain® gullies have a linished upper edge for esthetical reasons

Hygienic standards

In order to maintain a clean and sustainable hygienic environment within the food processing area, it is therefore essential that drainage elements should be designed and manufactured to rigorous standards to ensure bacteria traps are minimised.

All ACO InDrain® gullies are designed for optimum hygiene performance taking into account guidelines described in EN 1672 and EN ISO 14159 to minimise hygiene risk.

Slip resistance

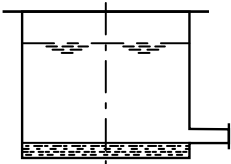
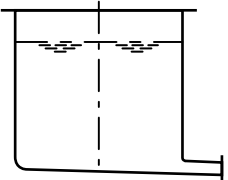
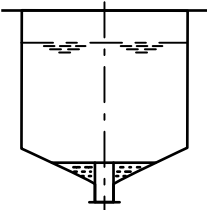
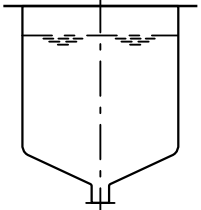
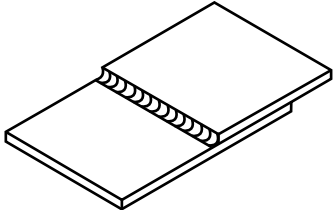
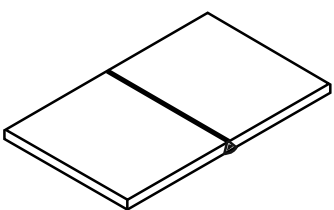
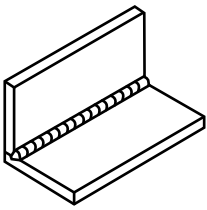
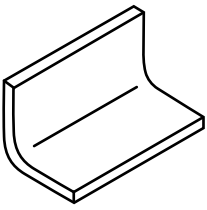
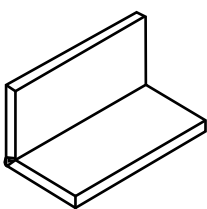
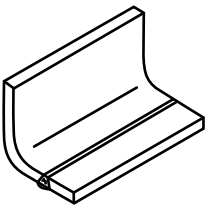
The consequences of slips in food processing and kitchen areas can be very serious as accidents can easily occur involving high temperature foodstuffs and cooking surfaces. For applications where the potential for slipping is increased, enhanced slip resistant gratings should be considered. From this reason ACO InDrain® gully portfolio includes range of slip resistant grates.

Certification

ACO stainless steel gullies are manufactured and tested in accordance with EN 1253 – Gullies in buildings.

Fire rating

Fire rated gullies for classes up to R120 according to DIN 4102 and EN 1366 are available on request.

Hygiene risk according to EN 1672 and EN ISO 14159	Acceptable according to EN 1672 and EN ISO 14159
 <p data-bbox="347 936 515 965">Not drainable design</p>	 <p data-bbox="767 936 911 965">Drainable design</p>
 <p data-bbox="347 1238 515 1267">Not drainable design</p>	 <p data-bbox="767 1238 911 1267">Drainable design</p>
 <p data-bbox="320 1509 544 1538">Continuously welded lap joint</p>	 <p data-bbox="743 1509 935 1538">Continuously welded butt</p>
 <p data-bbox="359 1767 502 1796">Welded in corners</p>	 <p data-bbox="751 1767 924 1796">Round internal corner</p>
 <p data-bbox="359 2036 502 2065">Welded in corners</p>	 <p data-bbox="743 2036 935 2065">Welded in smooth area</p>

System overview

Characteristics

ACO stainless steel gullies are designed to be used in commercial applications where hygiene, durability and performance requirements are paramount. ACO InDrain® gullies are available in a number of versions featuring different flow rates, grating designs, sizes and spigot outlet diameters to suit various applications. 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. ACO offers 4 generic gully configurations as shown in the table below.

Fixed height gullies are convenient, free-standing units suitable for cementitious, resin or tiled floors. Telescopic gullies can be installed

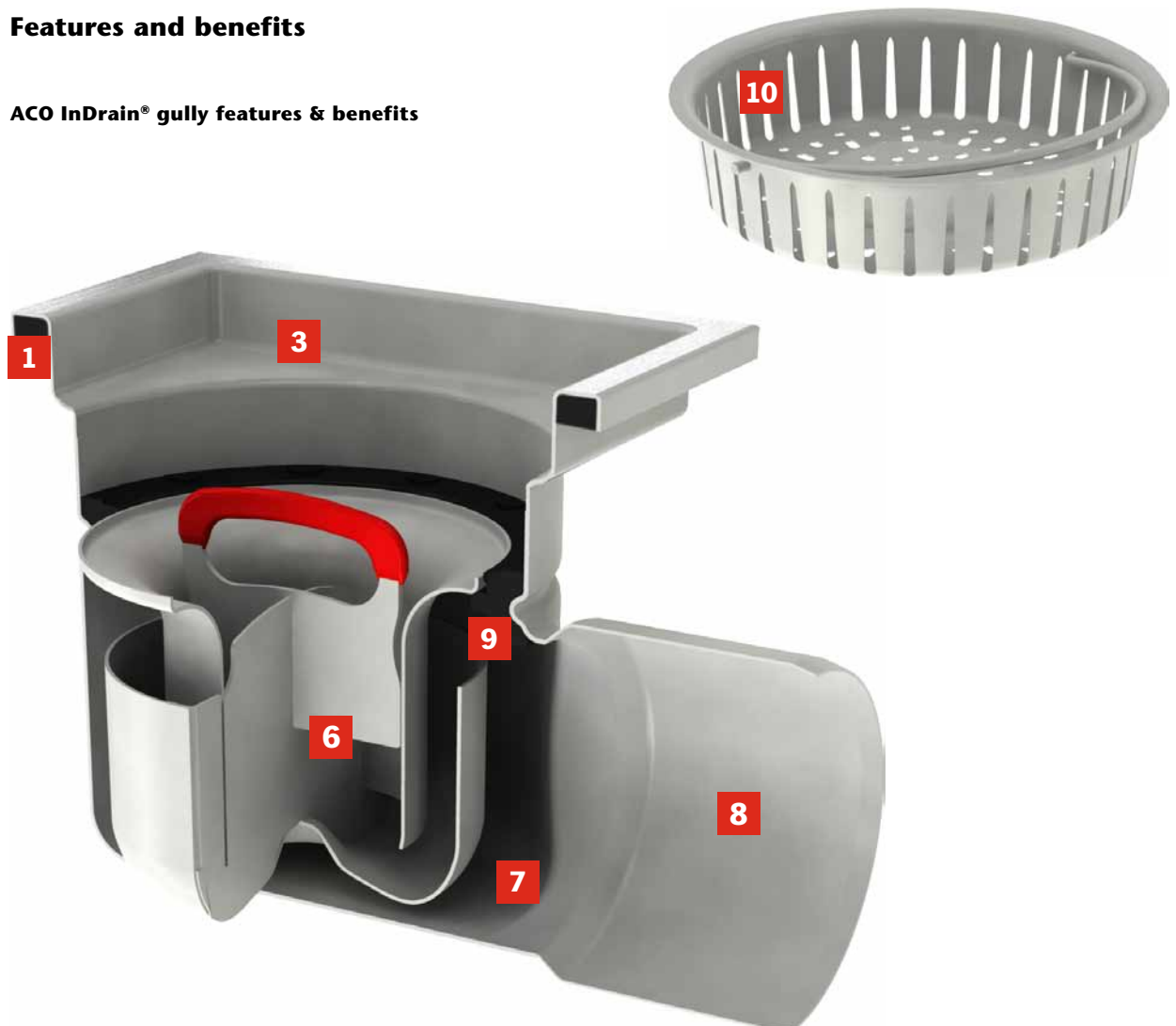
either with ACO InDrain® gully tops or with ACO stainless steel linear drainage channels in most flooring constructions, including floors with waterproofing membranes.

All ACO InDrain® gullies are available with vertical or horizontal spigot outlets.

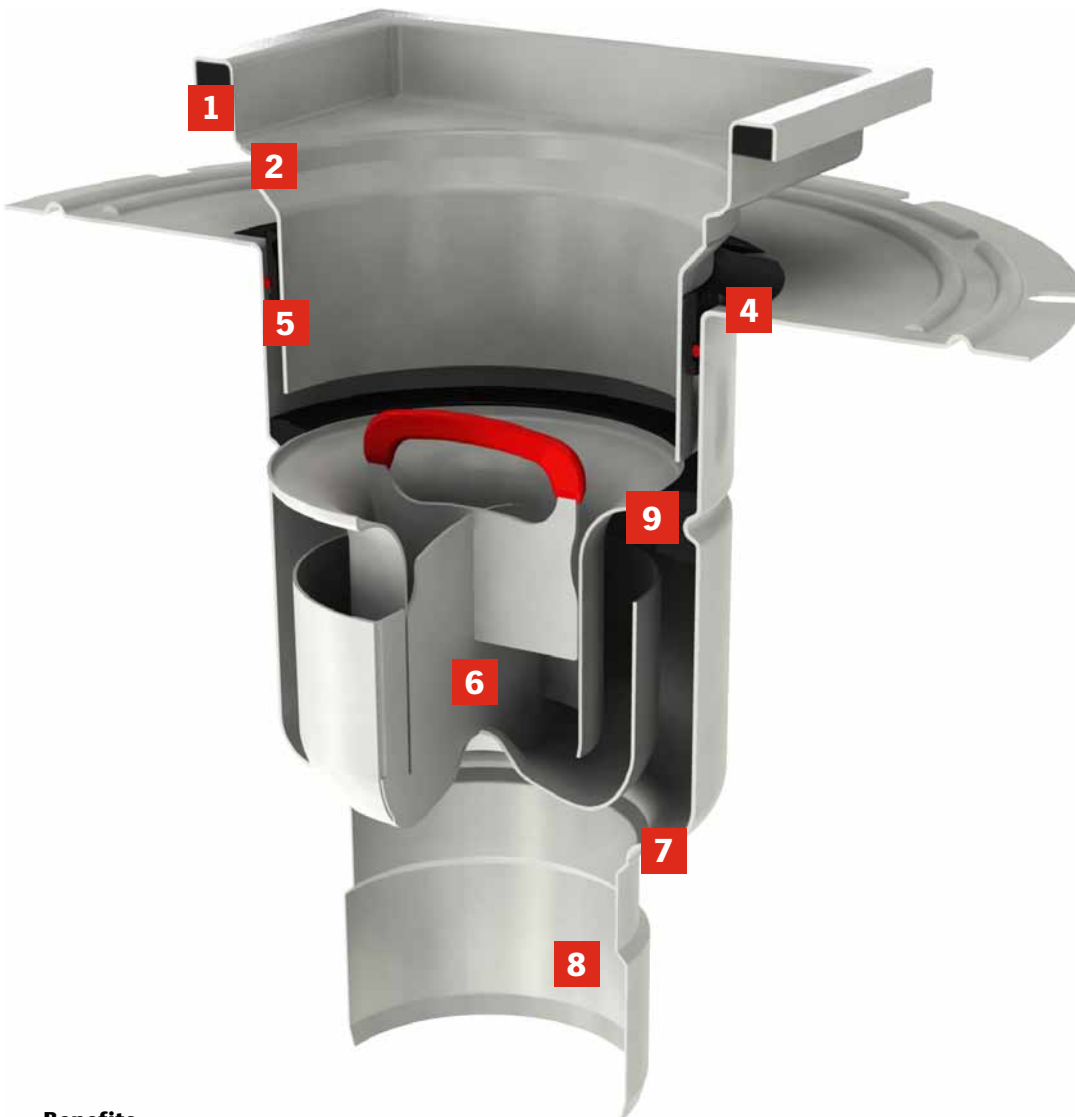
Fixed height gullies		
		<ul style="list-style-type: none"> ■ Fixed gully height ■ No waterproofing membrane connection ■ No seepage drainage facility
Telescopic gullies		
With location flange		<ul style="list-style-type: none"> ■ Friction lock height adjustment ■ 360° rotatable top ■ No membrane connection ■ No seepage drainage
With adhesive bonding flange		<ul style="list-style-type: none"> ■ Friction lock height adjustment ■ 360° rotatable top ■ Adhesive bonding flange for waterproofing layer ■ Seepage drainage or sealed solution easily configured
With mechanical clamping flange		<ul style="list-style-type: none"> ■ Friction lock height adjustment ■ 360° rotatable top ■ Mechanical clamping flange for waterproofing layer ■ Seepage drainage or sealed solution easily configured

Features and benefits

ACO InDrain® gully features & benefits



- 1** Edge in-fill significantly improves hygiene and durability
- 2** Large radii for easy cleaning
- 3** Deep-drawn body ensures smooth contours eliminating crevices.
- 4** Friction ring reduces installation time
- 5** Friction ring easily convertible for membrane drainage
- 6** Foul air trap design minimises evaporation rate and aerosol mobility
- 7** Dry sump design, no water retention in sump
- 8** Gully flow rate and self-cleansing exceeds requirements of EN 1253
- 9** Fully removable foul air trap and support for easy cleaning
- 10** Deep-drawn stainless steel silt basket eliminates crevices



Benefits

Specifier benefits

- Hygienic design following EN 1672 and EN ISO 14159 requirements
- Stainless steel construction for durability and long life
- Gully top edge infill supplied as standard for hygiene and durability
- Wide range of gratings for all load class applications
- Slip resistant gratings available for added user safety
- Low construction height
- Fully compliant to EN 1253
- Reliable waterproofing membrane connection options
- Waterproofing membrane seepage drainage provision
- Suitable for all floor types including vinyl flooring

Installing contractor benefits

- Low construction height
- Friction lock telescopic adjustment reduces installation time
- Gully levelling facilities
- Quick and reliable flange connection for waterproofing membranes
- Friction ring converts easily to membrane seepage drainage
- Gully top edge infill for durability and eliminates time-consuming back filling
- Easy installation for all floor types – ceramic tiles, cementitious and resin screeds, vinyl

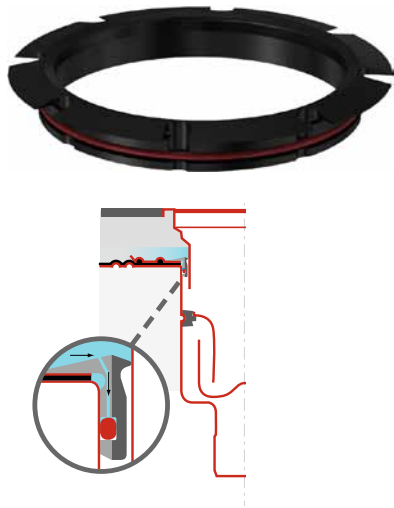
Client benefits

- Fully compliant to EN 1253
- Hygienic design following EN 1672 and EN ISO 14159 requirements
- Slip resistant gratings available for added user safety
- Easy and low cost cleaning
- Stainless steel construction for durability and long life
- Optional silt baskets
- Wide range of gratings
- Gully top edge infill for hygiene and durability
- Positive membrane drainage for enhanced construction life

Friction ring



Sealing function

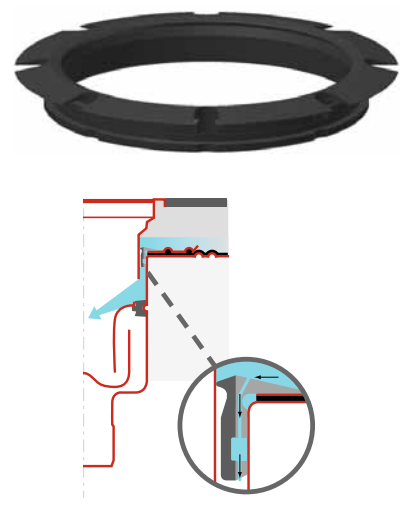


Easy removable sealing ring



Removal of the red O-ring opens the water drainage ways

Drainage function







Gully guide

This guide helps the designer to select the appropriate gully for each particular application by following six simple steps.




Step 1

Depending on the composition of floor construction the appropriate type of the gully should be selected.

No waterproofing membrane		Waterproofing membrane present	
Fixed height	Telescopic adjustable – location flange	Telescopic adjustable – adhesive bonding flange	Telescopic adjustable – mechanical clamping flange
			
<ul style="list-style-type: none"> ■ Fixed height ■ Easy installation ■ Suitable for areas where waterproofing is independent of the gully body 	<ul style="list-style-type: none"> ■ Used in combinations with gully tops or linear drainage channels ■ Adjustable height and rotation of the gully top ■ Ideal for applications where final floor height unknown ■ Suitable for areas where waterproofing is independent of the gully body 	<ul style="list-style-type: none"> ■ Waterproofing connection by welding or adhesive bonding ■ Usable with gully tops or linear drainage channels ■ Adjustable height and full rotation of the gully top 	<ul style="list-style-type: none"> ■ Waterproofing connection by mechanical clamping flange ■ Usable with gully tops or linear drainage channels ■ Adjustable height and full rotation of the gully top

Step 2

If required, select the raising piece for floor constructions with double waterproofing layers or for increasing the overall height of the gully. Applicable only for telescopic adjustable gullies.

No waterproofing membrane connected to raising piece	Waterproofing membrane connected to raising piece	
Telescopic adjustable – location flange	Telescopic adjustable – adhesive bonding flange	Telescopic adjustable – mechanical clamping flange
		
<ul style="list-style-type: none"> ■ Usable with gully tops or linear drainage channels ■ Adjustable height and rotation ■ Increases overall height with 95 mm 	<ul style="list-style-type: none"> ■ Waterproofing connection by welding or adhesive bonding ■ Usable with gully tops or linear drainage channels ■ Adjustable height and rotation ■ Increases overall height with 95 mm 	<ul style="list-style-type: none"> ■ Waterproofing connection by mechanical clamping flange ■ Usable with gully tops or linear drainage channels ■ Adjustable height and rotation ■ Increases overall height with 95 mm

Step 3

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 4

An important factor in the selection of gully is the required flow rate. Flow rate is affected by several factors such as the size and height of the gully body, use of silt basket and height of the top.

		Fixed height gullies			Telescopic adjustable gullies*			
		DN/OD	200×200	250×250	300×300	200×200	250×250	300×300
Vertical outlet flow rate [l/s]	157	70/75 mm	2.7	2.7	–	2.7–3.4	2.7–3.4	–
		100/110 mm	3.5	3.5	–	2.8–4.5	2.8–4.5	–
	218	100/110 mm	–	–	5.0	–	–	5.0–6.3
		150/160 mm	–	–	5.0	–	–	5.0–6.3
Horizontal outlet flow rate [l/s]	157	70/75 mm	2.6	2.6	–	2.6–3.4	2.6–3.4	–
		100/110 mm	2.8	2.8	4.4	2.8–4.5	2.8–4.5	–
	218	100/110 mm	–	–	–	–	–	4.4–5.5

Flow rate performance without silt basket (flow rates with empty silt basket are approximately 15% lower than the values stated)

* For detailed flow rates see page 29

Step 5

For the collection of solid particles, the gully can be fitted with an optional silt basket.

Gully spigot outlet position	[litres]	[litres]
Vertical	0.6	1.4
Horizontal & vertical	0.3	0.7

Step 6

The final floor finish determines the gully top selection.

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

Step 7

For the choice of the appropriate grating following properties have to be considered:

- Traffic load
- Hygiene
- Slip resistance

	Mesh grating		Quadrato	Ladder grating		Slot cover	Heelsafe	ARLA grating	Vulcano grating
	Antislip	Plain	Plain	Antislip	Plain	Plain	Plain	Antislip	Antislip
Hygiene	+	+	+	+++++	+++++	+++	+++	+++++	+++
Slip resistance	+++++	+++	+	+++	+	+	+	++++	+++++
Load classes									
200×200	L15	L15	L15	M125	C250	M125	L15	L15	L15
250×250	L15	L15	L15	M125	C250	M125	L15	L15	L15
300×300	L15	L15	L15	M125	C250	M125	L15	L15	L15

+ = 😊

+++++ = 😄

Load class L15, M125 acc. to EN 1253

Load class C250 acc. to EN 124

Family range

ACO gully 142 – fixed height – horizontal and vertical outlet

- Hygienic design including large radii formed contours, deep-drawn components and minimal welds to minimize crevices and bacteria traps according to EN 1672 and EN ISO 14159
- Stainless steel gully fully compliant to EN 1253
- Available in 1.4301 (304) or 1.4404 (316L) grades of stainless steel
- Dry sump design ensures no standing waste water in gully base
- Fully removable and easily cleaned stainless steel foul air trap (FAT)
- Removable hygienic and corrosion resistant Nitrile FAT support
- High flow rate gullies from 1.4 l/s (DN 70) – 1.5 l/s (DN 100)
- Gully top frame size: 200×200 mm
- Outlet spigot DN 70/100 (75 mm or 110 mm OD)
- Wide range of gratings to Load Class L15 – M125 (EN 1253) or C250 (EN 124)
- Optional high volume silt basket 0.3 litre (horizontal outlet) or 0.4 litre (vertical outlet)

ACO gully 142 – fixed height – vertical outlet						
Picture	Drawing	Top size	DN/ OD	FAT	Material	Part Nr.
		200×200 mm	70/75 mm	without FAT	1.4301	414700
					1.4404	414800
				with standard FAT	1.4301	414701
					1.4404	414801
		200×200 mm	100/110 mm	without FAT	1.4301	414702
					1.4404	414802
				with standard FAT	1.4301	414703
					1.4404	414803
		Thin bed 200×200 mm	70/75 mm	with standard FAT	1.4301	414744
					1.4404	414844
		Thin bed 200×200 mm	100/110 mm	with standard FAT	1.4301	414745
					1.4404	414845

Table 12


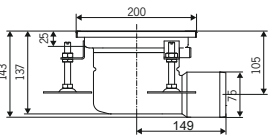

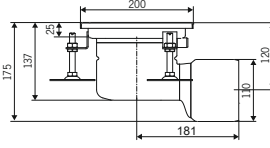

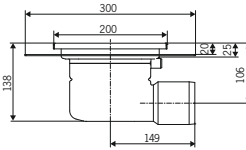

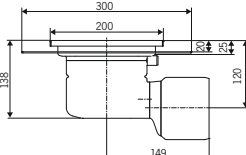
ACO gully 142 – fixed height – horizontal outlet						
Picture	Drawing	Top size	DN/ OD	FAT	Material	Part Nr.
		200×200 mm	70/75 mm	without FAT	1.4301	414704
					1.4404	414804
				with standard FAT	1.4301	414705
					1.4404	414805
		200×200 mm	100/110 mm	without FAT	1.4301	414706
					1.4404	414806
				with standard FAT	1.4301	414707
					1.4404	414807
		Thin-bed 200×200 mm	70/75 mm	with standard FAT	1.4301	414746
					1.4404	414846
		Thin-bed 200×200 mm	100/110 mm	with standard FAT	1.4301	414747
					1.4404	414847

Table 13

ACO gully 142 – telescopic – horizontal and vertical outlet

- Hygienic design including large radii formed contours, deep-drawn components and minimal welds to minimize crevices and bacteria traps according to EN 1672 and EN ISO 14159
- Stainless steel gully fully compliant to EN 1253
- Available in 1.4301 (304) or 1.4404 (316L) grades of stainless steel
- Dry sump design ensures no standing waste water in gully base
- Fully removable and easily cleaned stainless steel foul air trap (FAT)
- Removable hygienic and corrosion resistant Nitrile FAT support
- High flow rate gullies from 1,4 l/s (DN 70) – 2,0 l/s (DN 100)
- Friction lock adjustable and 360° rotatable gully top
- Gully top frame size: 200×200 mm
- Outlet spigot DN 70/100 (75 mm or 110 mm OD)
- Wide range of gratings to load class L15 – M125 (EN 1253) or C250 (EN 124)
- Optional high volume silt basket 0.3 litre (horizontal outlet) or 0.4 litre (vertical outlet)
- Gully body with location flange or integrated membrane flange for either adhesive bonding or mechanical clamp

ACO gully 142 – telescopic – horizontal and vertical outlet						
Picture	Drawing	Flange type	DN/ OD	FAT	Material	Part Nr.
		Location flange	70/75 mm	without FAT	1.4301	414708
					1.4404	414808
				with standard FAT	1.4301	414709
					1.4404	414809
		Adhesive Bonding Flange	70/75 mm	without FAT	1.4301	414710
					1.4404	414810
				with standard FAT	1.4301	414711
					1.4404	414811
		Mechanical Clamping Flange	70/75 mm	without FAT	1.4301	414712
					1.4404	414812
				with standard FAT	1.4301	414713
					1.4404	414813
		Location Flange	100/110 mm	without FAT	1.4301	414714
					1.4404	414814
				with standard FAT	1.4301	414715
					1.4404	414815
		Adhesive Bonding Flange	100/110 mm	without FAT	1.4301	414716
					1.4404	414816
				with standard FAT	1.4301	414717
					1.4404	414817
		Mechanical Clamping Flange	100/110 mm	without FAT	1.4301	414718
					1.4404	414818
				with standard FAT	1.4301	414719
					1.4404	414819

Table 15

ACO gully 142 – telescopic - horizontal outlet						
Picture	Drawing	Flange type	DN/ OD	FAT	Material	Part Nr.
		Location flange	70/75 mm	without FAT	1.4301	414720
					1.4404	414820
				with standard FAT	1.4301	414721
					1.4404	414821
		Adhesive Bonding Flange	70/75 mm	without FAT	1.4301	414722
					1.4404	414822
				with standard FAT	1.4301	414723
					1.4404	414823
		Mechanical Clamping Flange	70/75 mm	without FAT	1.4301	414724
					1.4404	414824
				with standard FAT	1.4301	414725
					1.4404	414825
		Location flange	100/110 mm	without FAT	1.4301	414726
					1.4404	414826
				with standard FAT	1.4301	414727
					1.4404	414827
		Adhesive Bonding Flange	100/110 mm	without FAT	1.4301	414728
					1.4404	414828
				with standard FAT	1.4301	414729
					1.4404	414829
		Mechanical Clamping Flange	100/110 mm	without FAT	1.4301	414730
					1.4404	414830
				with standard FAT	1.4301	414731
					1.4404	414831

Table 16

ACO gully 142 – telescopic – gully tops					
Picture	Drawing	Flange type	Height of grate	Material	Part Nr.
		Square top 200x200	25	1.4301	414732
				1.4404	414832
		Thin-bed top 200x200	25	1.4301	414734
				1.4404	414834
		Thin-bed top drainage 200x200	25	1.4301	414735
				1.4404	414835
		Plastic top with stainless steel grating 150x150 mm (K3)	5	Plastic	414903
		MEKU top with stainless steel grating 150x150 mm (K3)	5	Plastic	414904
		Square top with stainless steel grating 150x150 mm (K3)	5	Plastic	414905

Table 17


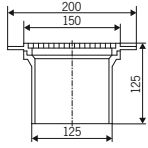

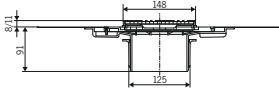

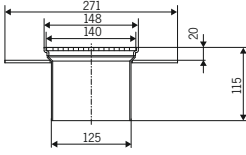
ACO gully 142 – telescopic – gully tops					
Picture	Drawing	Flange type	Height of grate	Material	Part Nr.
		PVC top with stainless steel grating 150x150 mm (K3)	5	Plastic	414906
		Plastic thin-bed top with stainless steel grating 150x150 mm (K3)	5	Plastic	414907
		Square top with sanded flange and stainless steel grating 150x150 mm (K3)	5	1.4301	414909

Table 18

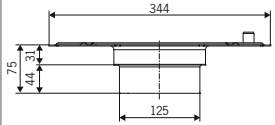
ACO gully 142 – telescopic – raising pieces				
Picture	Drawing	Raising piece type	Material	Part Nr.
		Raising piece with location flange	1.4301	414736
			1.4404	414836
		Raising piece with adhesive bonding flange	1.4301	414737
			1.4404	414837
		Raising piece with mechanical clamping flange	1.4301	414738
			1.4404	414838
		Extension	Plastic	2040.00.00

Table 19

ACO gully 142 – accessories and spares				
Picture	Drawing	Name	Material	Part Nr.
		Vertical outlet gully silt basket 0.4 litre capacity	1.4301	414739
			1.4404	414839
		Horizontal outlet gully silt basket 0.3 litre capacity	1.4301	414740
			1.4404	414840
		Standard foul air trap	1.4301	414741
			1.4404	414841
		Friction ring	Nitrile	414742
		Standard foul air trap support	Nitrile	414743
		Installation kit Fit-In ■ Non-flammable in accordance with building materials class A1 ■ For mortar-less installation in core bores: 225 mm ■ With/without fire-protection set ■ Dimensions Fit-In ■ Diameter: 215 mm ■ Height: 150 mm		9390.07.40
		Bellshape foul air trap	Plastic	5180.10.15
		Fire protective protection bellshape foul air trap* ■ Fire and smoke seal for additional fire protection of drain bodies	Plastic	5180.20.15
		Spare roll ring for bellshape FAT	Nitrile	5180.10.26

* Can be used for gullies with vertical outlet only.

ACO gully 142 – gratings for frame 200×200 mm						
Picture	Drawing	Name	Load class	Surface	Material	Part Nr.
		Mesh grating	L15	Antislip	1.4301	408090
					1.4404	408190
				Plain	1.4301	408091
					1.4404	408191
		Quadrato grating	L15	Plain	1.4301	408092
					1.4404	408192
		Ladder grating	M125	Antislip	1.4301	408093
					1.4404	408193
				Plain	1.4301	408020
					1.4404	408120
		Ladder grating	C250	Plain	1.4301	408043
					1.4404	408143
		Heelsafe grating	L15	Plain	1.4301	408022
					1.4404	408122
		Volcano grating	L15	Antislip	1.4301	408094
					1.4404	408194
		Arla grating	L15	Antislip	1.4301	408023
					1.4404	408123
		Slot cover	M125	Plain	1.4301	408021
					1.4404	408121

Table 21


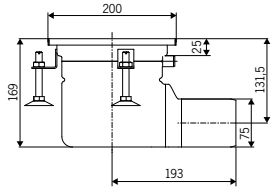

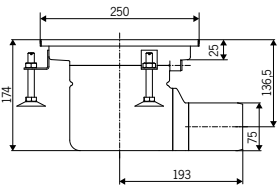

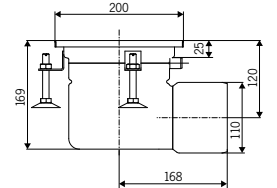

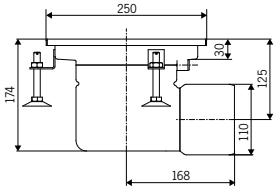
Family range

ACO InDrain® gully 157 – fixed height – horizontal and vertical outlet


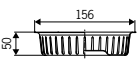

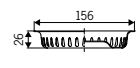

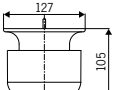

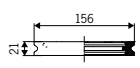
- Hygienic design including large radii formed contours, deep-drawn components and minimal welds to minimize crevices and bacteria traps according to EN 1672 and EN ISO 14159
- Stainless steel gully fully compliant to EN 1253
- Available in 1.4301 (304) or 1.4404 (316L) grades of stainless steel
- Dry sump design ensures no standing waste water in gully base
- Fully removable and easily cleaned stainless steel foul air trap (FAT)
- Removable hygienic and corrosion resistant Nitrile FAT support
- High flow rate gullies from 2.75 l/s (DN 70) – 3.50 l/s (DN 100)
- Gully top frame size: 200×200 mm or 250×250 mm
- Outlet spigot DN 70/100 (75 mm or 110 mm OD)
- Wide range of gratings to Load Class L15 – M125 (EN 1253) or C250 (EN 124)
- Optional high volume silt basket 0.3 litre (horizontal outlet) or 0.6 litre (vertical outlet)

ACO InDrain® gully 157 – fixed height – vertical outlet						
Picture	Drawing		DN/OD	FAT	Material	Part Nr.
		200×200 mm	70/75 mm	Without FAT	1.4301	408000
					1.4404	408100
				With FAT	1.4301	408001
					1.4404	408101
		250×250 mm	70/75 mm	Without FAT	1.4301	408016
					1.4404	408116
				With FAT	1.4301	408017
					1.4404	408117
		200×200 mm	100/110 mm	Without FAT	1.4301	408002
					1.4404	408102
				With FAT	1.4301	408003
					1.4404	408103
		250×250 mm	100/110 mm	Without FAT	1.4301	408018
					1.4404	408118
				With FAT	1.4301	408019
					1.4404	408119

ACO InDrain® gully 157 – fixed height – horizontal outlet

Picture	Drawing	DN/OD	FAT	Material	Part Nr.	
		200x200 mm	70/75 mm	Without FAT	1.4301	408008
					1.4404	408108
			With FAT	1.4301	408009	
				1.4404	408109	
		250x250 mm	70/75 mm	Without FAT	1.4301	408024
					1.4404	408124
			With FAT	1.4301	408025	
				1.4404	408125	
		200x200 mm	100/110 mm	Without FAT	1.4301	408010
					1.4404	408110
			With FAT	1.4301	408011	
				1.4404	408111	
		250x250 mm	100/110 mm	Without FAT	1.4301	408026
					1.4404	408126
			With FAT	1.4301	408027	
				1.4404	408127	

ACO InDrain® gully 157 – fixed height – accessories and spares

Picture	Drawing	Name	Material	Part Nr.
		Vertical outlet gully silt basket 0.6 litre capacity	1.4301	408202
			1.4404	408212
		Horizontal outlet gully silt basket 0.3 litre capacity	1.4301	408203
			1.4404	408213
		Foul air trap	1.4301	408200
			1.4404	408210
		Foul Air Trap support	Nitrile	408201

ACO InDrain® gully 157 – telescopic – horizontal and vertical outlet

- Hygienic design including large radii formed contours, deep-drawn components and minimal welds to minimize crevices and bacteria traps according to EN 1672 and EN ISO 14159
- Fully removable and easily cleaned stainless steel foul air trap (FAT)
- Outlet spigot DN 70/100 (75 mm or 110 mm OD)
- Stainless steel gully fully compliant to EN 1253
- Removable hygienic and corrosion resistant Nitrile FAT support
- Wide range of gratings to load class L15 – M125 (EN 1253) or C250 (EN 124)
- Available in 1.4301 (304) or 1.4404 (316L) grades of stainless steel
- High flow rate gullies from 2.75 l/s (DN 70) – 3.50 l/s (DN 100)
- Optional high volume silt basket 0.3 litre (horizontal outlet) or 0.6 litre (vertical outlet)
- Dry sump design ensures no standing waste water in gully base
- Friction lock adjustable and 360° rotatable gully top
- Gully top frame size: 200×200 mm or 250×250 mm
- Gully body with location flange or integrated membrane flange for either adhesive bonding or mechanical clamp


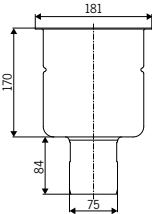

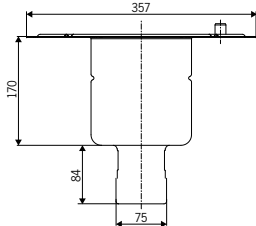

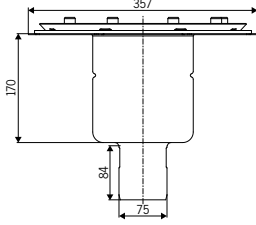

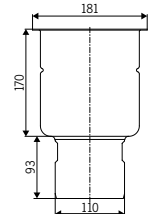

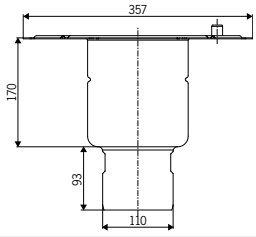

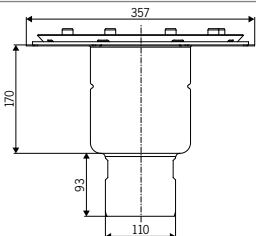
ACO InDrain® gully 157 – telescopic – vertical outlet						
Picture	Drawing		DN/OD	FAT	Material	Part Nr.
		Location flange	70/75 mm	Without FAT	1.4301	408048
					1.4404	408148
				With FAT	1.4301	408049
					1.4404	408149
		Adhesive bonding flange	70/75 mm	Without FAT	1.4301	408050
					1.4404	408150
				With FAT	1.4301	408051
					1.4404	408151
		Mechanical clamping flange	70/75 mm	Without FAT	1.4301	408052
					1.4404	408152
				With FAT	1.4301	408053
					1.4404	408153

Table continues on the next page.

ACO InDrain® gully 157 – telescopic – vertical outlet

Picture	Drawing		DN/OD	FAT	Material	Part Nr.
		Location flange	100/110 mm	Without FAT	1.4301	408054
					1.4404	408154
				With FAT	1.4301	408055
					1.4404	408155
		Adhesive bonding flange	100/110 mm	Without FAT	1.4301	408056
					1.4404	408156
				With FAT	1.4301	408057
					1.4404	408157
		Mechanical clamping flange	100/110 mm	Without FAT	1.4301	408058
					1.4404	408158
				With FAT	1.4301	408059
					1.4404	408159

ACO InDrain® gully 157 – telescopic – horizontal outlet						
Picture	Drawing		DN/OD	FAT	Material	Part Nr.
		Location flange	70/75 mm	Without FAT	1.4301	408072
					1.4404	408172
				With FAT	1.4301	408073
					1.4404	408173
		Adhesive bonding flange	70/75 mm	Without FAT	1.4301	408074
					1.4404	408174
				With FAT	1.4301	408075
					1.4404	408175
		Mechanical clamping flange	70/75 mm	Without FAT	1.4301	408076
					1.4404	408176
				With FAT	1.4301	408077
					1.4404	408177
		Location flange	100/110 mm	Without FAT	1.4301	408078
					1.4404	408178
				With FAT	1.4301	408079
					1.4404	408179
		Adhesive bonding flange	100/110 mm	Without FAT	1.4301	408080
					1.4404	408180
				With FAT	1.4301	408081
					1.4404	408181
		Mechanical clamping flange	100/110 mm	Without FAT	1.4301	408082
					1.4404	408182
				With FAT	1.4301	408083
					1.4404	408183

ACO InDrain® gully 157 – telescopic – gully tops

Picture	Drawing	Name	Height of grate	Material	Part Nr.
		Square top 200×200 mm (concrete, tiled and resin screed floors)	25 mm	1.4301	408208
				1.4404	408218
		Square top 250×250 mm (concrete, tiled and resin screed floors)	30 mm	1.4301	408248
				1.4404	408258
		Vinyl floor top	30 mm	1.4301	408240
				1.4404	408250
		Thin-bed top	25 mm	1.4301	408241
				1.4404	408251
		Thin-bed top – seepage drainage	25 mm	1.4301	408244
				1.4404	408254
		Thin-bed top	30 mm	1.4301	408245
				1.4404	408255
		Thin-bed top – seepage drainage	30 mm	1.4301	408246
				1.4404	408256

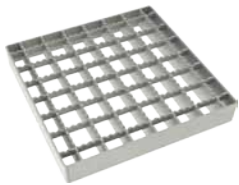
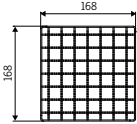

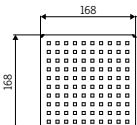

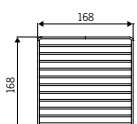

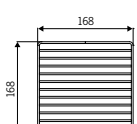
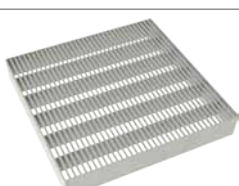
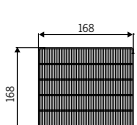

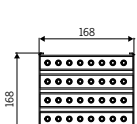
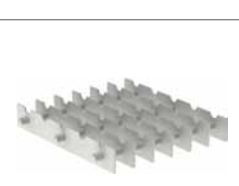
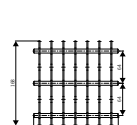

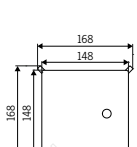
ACO InDrain® gully 157 – telescopic – raising pieces

Picture	Drawing	Name	Material	Part Nr.
		Raising piece with location flange	1.4301	408249
			1.4404	408259
		Raising piece with adhesive bonding flange	1.4301	408206
			1.4404	408216
		Raising piece with mechanical clamping flange with screws	1.4301	408207
			1.4404	408217


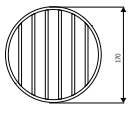

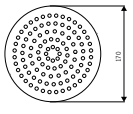

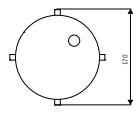
ACO InDrain® gully 157 – telescopic – accessories and spares

Picture	Drawing	Name	Material	Part Nr.
		Vertical outlet gully silt basket 0.6 litre capacity	1.4301	408202
			1.4404	408212
		Horizontal outlet gully silt basket 0.3 litre capacity	1.4301	408203
			1.4404	408213
		Foul air trap	1.4301	408200
			1.4404	408210
		Foul air trap support	Nitrile	408201
		Friction ring installation set	Nitrile	408205

ACO InDrain® gully 157 – gratings for frame 200×200 mm

Picture	Drawing		Load class	Surface	Material	Part Nr.
		Mesh grating	L15	Antislip	1.4301	408090
					1.4404	408190
				Plain	1.4301	408091
					1.4404	408191
		Quadrato grating	L15	Plain	1.4301	408092
					1.4404	408192
		Ladder grating	M125	Antislip	1.4301	408093
					1.4404	408193
				Plain	1.4301	408020
					1.4404	408120
		Ladder grating	C250	Plain	1.4301	408043
					1.4404	408143
		Heelsafe grating	L15	Plain	1.4301	408022
					1.4404	408122
		Volcano grating	L15	Antislip	1.4301	408094
					1.4404	408194
		Arla grating	L15	Antislip	1.4301	408023
					1.4404	408123
		Slot cover	M125	Plain	1.4301	408021
					1.4404	408121


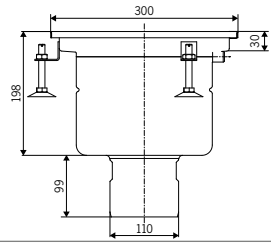

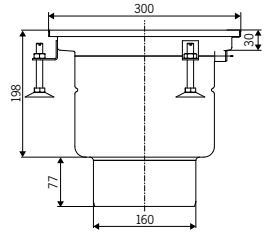
ACO InDrain® gully 157 – gratings for frame 250×250 mm						
Picture	Drawing		Load class	Surface	Material	Part Nr.
		Mesh grating	L15	Antislip	1.4301	408095
					1.4404	408195
				Plain	1.4301	408096
					1.4404	408196
		Quadrato grating	L15	Plain	1.4301	408097
					1.4404	408197
		Ladder grating	M125	Antislip	1.4301	408028
					1.4404	408128
				Plain	1.4301	408029
					1.4404	408129
		Ladder grating	C250	Plain	1.4301	408044
					1.4404	408144
		Heelsafe grating	L15	Plain	1.4301	408031
					1.4404	408131
		Volcano grating	L15	Antislip	1.4301	408033
					1.4404	408133
		Arla grating	L15	Antislip	1.4301	408032
					1.4404	408132
		Vulcano grating	M125	Plain	1.4301	408030
					1.4404	408130

ACO InDrain® gully 157 – gratings for vinyl top						
Picture	Drawing		Load class	Surface	Material	Part Nr.
		Ladder grating	L15	Plain	1.4301	97146
					1.4404	97367
		Perforated grating	L15	Plain	1.4301	97152
					1.4404	97369
		Slot cover	L15	Plain	1.4301	97154
					1.4404	97370


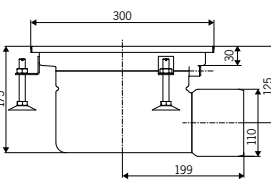
ACO InDrain® gully 218 – fixed height – horizontal and vertical outlet

- Hygienic design including large radii formed contours, deep-drawn components and minimal welds to minimize crevices and bacteria traps according to EN 1672 and EN ISO 14159
- Stainless steel gully fully compliant to EN 1253
- Available in 1.4301 (304) or 1.4404 (316L) grades of stainless steel
- Dry sump design ensures no standing waste water in gully base
- Fully removable and easily cleaned stainless steel foul air trap (FAT)
- Removable hygienic and corrosion resistant Nitrile FAT support
- High flow rate gullies from 5 l/s
- Gully top frame size: 300×300 mm
- Outlet spigot DN 100/150 (110 mm or 160 mm OD) for vertical outlet, DN 100 (110 mm OD) for horizontal outlet.
- Wide range of gratings to load class L15 – M125 (EN 1253) or C250 (EN 124)
- Optional high volume silt basket 0.7 litre (horizontal outlet) or 1.4 litre (vertical outlet)


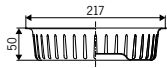

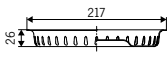

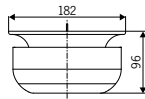

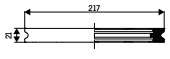
ACO InDrain® gully 218 – fixed height – vertical outlet

Picture	Drawing	DN/OD	FAT	Material	Part Nr.	
		300×300 mm	100/110 mm	Without FAT	1.4301	408004
					1.4404	408104
				With FAT	1.4301	408005
					1.4404	408105
		300×300 mm	150/160 mm	Without FAT	1.4301	408006
					1.4404	408106
				With FAT	1.4301	408007
					1.4404	408107

ACO InDrain® gully 218 – fixed height – horizontal outlet

Picture	Drawing	DN/OD	FAT	Material	Part Nr.	
		300×300 mm	100/110 mm	Without FAT	1.4301	408012
					1.4404	408112
				With FAT	1.4301	408013
					1.4404	408113

ACO InDrain® gully 218 – fixed height – accessories and spares

Picture	Drawing	Name	Material	Part Nr.
		Vertical outlet gully silt basket 1.4 litre capacity	1.4301	408222
			1.4404	408232
		Horizontal outlet gully silt basket 0.7 litre capacity	1.4301	408223
			1.4404	408233
		Foul air trap	1.4301	408220
			1.4404	408230
		Foul air trap support	Nitrile	408221

ACO InDrain® gully 218 – telescopic – horizontal and vertical outlet

- Hygienic design including large radii formed contours, deep-drawn components and minimal welds to minimize crevices and bacteria traps according to EN 1672 and EN ISO 14159
- Fully removable and easily cleaned stainless steel foul air trap (FAT)
- Wide range of gratings to load class L15 – M125 (EN 1253) or C250 (EN 124)
- Stainless steel gully fully compliant to EN 1253
- Removable hygienic and corrosion resistant Nitrile FAT support
- Optional high volume silt basket 0.7 litre (horizontal outlet) or 1.4 litre (vertical outlet)
- Available in 1.4301 (304) or 1.4404 (316L) grades of stainless steel
- High flow rate gullies from 5 l/s
- Gully body with location flange or integrated membrane flange for either adhesive bonding or mechanical clamp
- Dry sump design ensures no standing waste water in gully base
- Friction lock adjustable and 360° rotatable gully top
- Outlet spigot DN 100/150 (110 mm or 160 mm OD) for vertical outlet, DN100 (110 mm OD) for horizontal outlet only


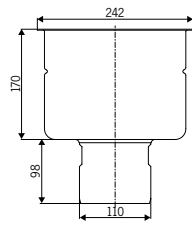

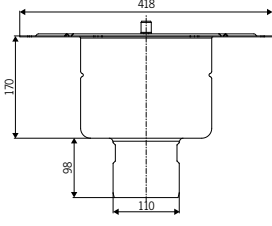

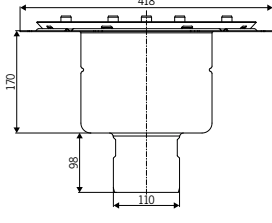

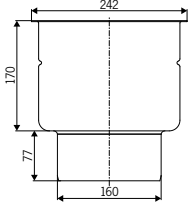

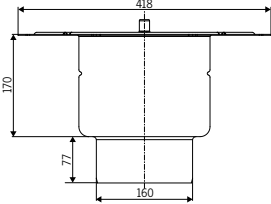

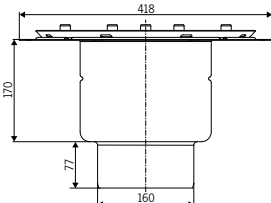

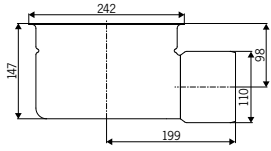

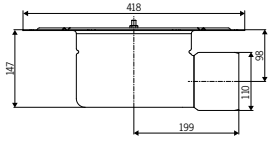

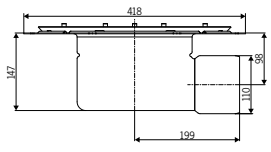
ACO InDrain® gully 218 – telescopic – vertical outlet						
Picture	Drawing		DN/OD	FAT	Material	Part Nr.
		Location flange	100/110 mm	Without FAT	1.4301	408060
					1.4404	408160
				With FAT	1.4301	408061
					1.4404	408161
		Adhesive bonding flange	100/110 mm	Without FAT	1.4301	408062
					1.4404	408162
				With FAT	1.4301	408063
					1.4404	408163
		Mechanical clamping flange	100/110 mm	Without FAT	1.4301	408064
					1.4404	408164
				With FAT	1.4301	408065
					1.4404	408165

Table continues on the next page.

ACO InDrain® gully 218 – telescopic – vertical outlet

Picture	Drawing		DN/OD	FAT	Material	Part Nr.
		Location flange	150/160 mm	Without FAT	1.4301	408066
					1.4404	408166
				With FAT	1.4301	408067
					1.4404	408167
		Adhesive bonding flange	150/160 mm	Without FAT	1.4301	408068
					1.4404	408168
				With FAT	1.4301	408069
					1.4404	408169
		Mechanical clamping flange	150/160 mm	Without FAT	1.4301	408070
					1.4404	408170
				With FAT	1.4301	408071
					1.4404	408171


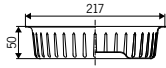

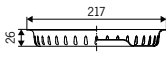

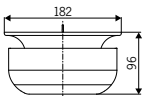




ACO InDrain® gully 218 – telescopic – horizontal outlet

Picture	Drawing		DN/OD	FAT	Material	Part Nr.
		Location flange	100/110 mm	Without FAT	1.4301	408084
					1.4404	408184
				With FAT	1.4301	408085
					1.4404	408185
		Adhesive bonding flange	100/110 mm	Without FAT	1.4301	408086
					1.4404	408186
				With FAT	1.4301	408087
					1.4404	408187
		Mechanical clamping flange	100/110 mm	Without FAT	1.4301	408088
					1.4404	408188
				With FAT	1.4301	408089
					1.4404	408189


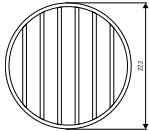

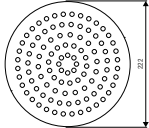

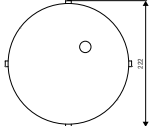
ACO InDrain® gully 218 – telescopic – gully tops					
Picture	Drawing	Name	DN/OD	Height of grate	Part Nr.
		Square top 300×300mm (concrete, tiled and resin screed floors)	30 mm	1.4301	408228
				1.4404	408238
		Vinyl floor top	30 mm	1.4301	408242
				1.4404	408252
		Thin-bed top	30 mm	1.4301	408243
				1.4404	408253
		Thin-bed top seepage drainage	30 mm	1.4301	408247
				1.4404	408257

ACO InDrain® gully 218 – telescopic – raising pieces				
Picture	Drawing	Name	Material	Part Nr.
		Raising piece with location flange	1.4301	408209
			1.4404	408219
		Raising piece with adhesive bonding flange	1.4301	408226
			1.4404	408236
		Raising piece with mechanical clamping flange with screws	1.4301	408227
			1.4404	408237

ACO InDrain® gully 218 – telescopic – accessories and spares

Picture	Drawing	Name	Material	Part Nr.
		Vertical outlet gully silt basket 1.4 litre capacity	1.4301	408222
			1.4404	408232
		Horizontal outlet gully silt basket 0.7 litre capacity	1.4301	408223
			1.4404	408233
		Foul air trap	1.4301	408220
			1.4404	408230
		Foul air trap support	Nitrile	408221
		Friction ring installation set	Nitrile	408225

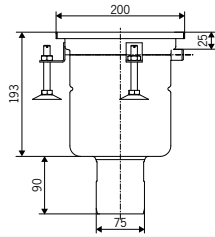
ACO InDrain® gully 218 – gratings for vinyl top

Picture	Drawing	Load class	Surface	Material	Part Nr.
		L15	Plain	1.4301	97148
				1.4404	97388
		L15	Plain	1.4301	97153
				1.4404	97390
		L15	Plain	1.4301	97156
				1.4404	97391

ACO InDrain® gully 218 – gratings for frame 300×300 mm						
Picture	Drawing		Load class	Surface	Material	Part Nr.
		Mesh grating	L15	Antislip	1.4301	408034
					1.4404	408134
				Plain	1.4301	408035
					1.4404	408135
		Quadrato	L15	Plain	1.4301	408036
					1.4404	408136
		Ladder grating	M125	Antislip	1.4301	408037
					1.4404	408137
				Plain	1.4301	408038
					1.4404	408138
		Ladder grating	C250	Plain	1.4301	408045
					1.4404	4080145
		Heelsafe grating	L15	Plain	1.4301	408040
					1.4404	408140
		Volcano	L15	Antislip	1.4301	408042
					1.4404	408142
		ARLA grating	L15	Antislip	1.4301	408041
					1.4404	408141
		Slot cover	M125	Plain	1.4301	408039
					1.4404	408139

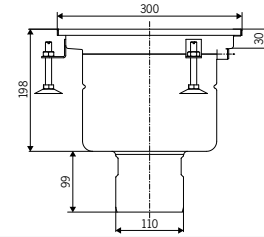
Flow rates

ACO InDrain® gully 157 – height



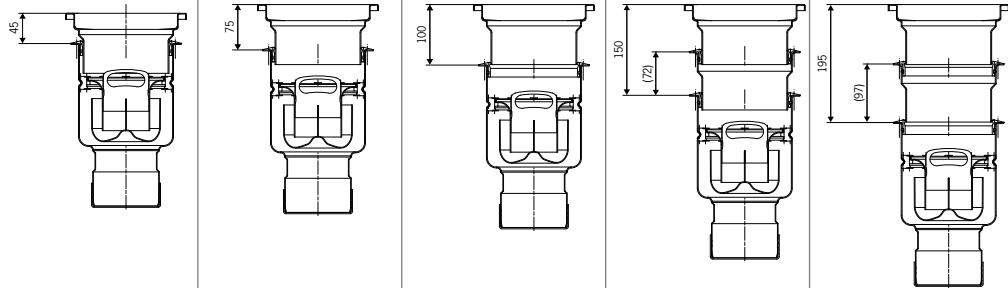
Flow rate [l/s]		
DN 70	Horizontal	2.6
	Vertical	2.7
DN 100	Horizontal	2.8
	Vertical	3.5

ACO InDrain® gully 218 – height



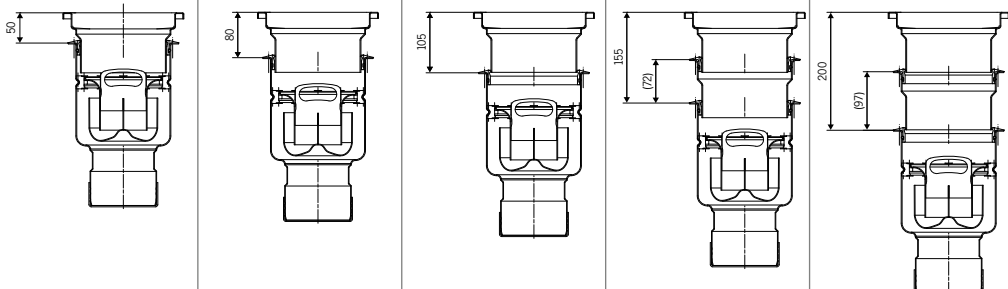
Flow rate [l/s]		
DN 100	Horizontal	4.4
	Vertical	5
DN 150	Vertical	5

ACO InDrain® gully 157 – telescopic



Flow rate [l/s]						
DN 70	Horizontal	2.6	2.8	3.0	3.2	3.4
	Vertical	2.7	2.9	3.0	3.2	3.4
DN 100	Horizontal	2.8	3.2	3.6	4.1	4.5
	Vertical	3.5	3.9	4.1	4.3	4.5

ACO InDrain® gully 218 – telescopic



Flow rate [l/s]						
DN 100	Horizontal	4.4	4.5	4.8	5	5.5
	Vertical	5	5.4	5.6	5.9	6.3
DN 150	Vertical	5	5.4	5.6	5.9	6.3

Cleaning methods

Cleaning methods

Stainless steel and NBR is easy to clean. Washing with soap or a mild detergent and warm water followed by a clear water rinse is usually quite adequate for many industrial applications. An enhanced aesthetic appearance will be achieved if the cleaned surface is finally wiped dry.

Conclusion

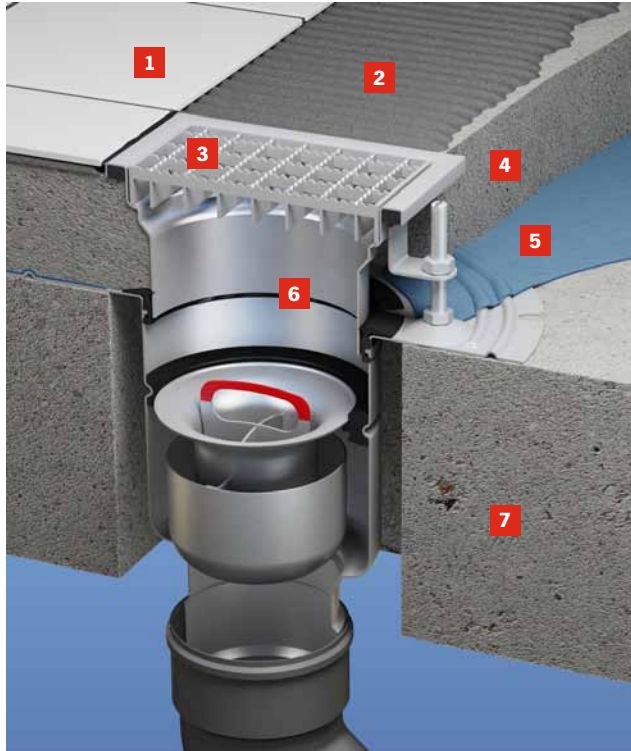
If all the suggestions and actions in the table below have been attempted, stainless steel has the facility to be mechanically cleaned by specialists on site. Please contact ACO Industries for further assistance.

Problem	Cleaning agent	Comment
Routine cleaning, all finishes.	Soap or mild detergent and water (such as washing up liquid).	Sponge, rinse with clean water, wipe dry if necessary.
Fingerprints, all finishes	Soap or warm water or organic solvent (e.g. acetone, alcohol).	Rinse with clean water, wipe dry if necessary.
Stubborn stains and discolouration.	Mild cleaning solutions (e.g. Jif, Goddard stainless Steel Care).	Rinse well with clean water and wipe dry.
Oil and grease marks, all finishes.	Organic solvents (e.g. acetone, alcohol, trichlorethylene).	Clean after with soap and water, rinse with clean water and dry.
Rust and other corrosion products.	Oxalic acid. The cleaning solution should be applied with a swab and allowed to stand for 15–20 minutes before being washed away with water. May continue using Jif to give final clean.	Rinse well with clean water (precautions for acid cleaners should be observed).
Scratches on brush (satin) finish.	Household synthetic fibre scouring pads (e.g. Scotch Brite fibre pad). For deeper scratches; apply in direction of polishing. The clean with soap or detergent as per routine cleaning.	Do not use ordinary steel wool (iron particles can become embedded in stainless steel and cause further surface problems).

Installation recommendations

Telescopic flanged gully installed in suspended concrete slab construction

- 1** Ceramic tiles
- 2** Tile cement
- 3** Mastic sealant
- 4** Floor screed
- 5** Water proof membrane (WPM)
- 6** Gully
- 7** Suspended concrete slab core-boarded to accept gully body



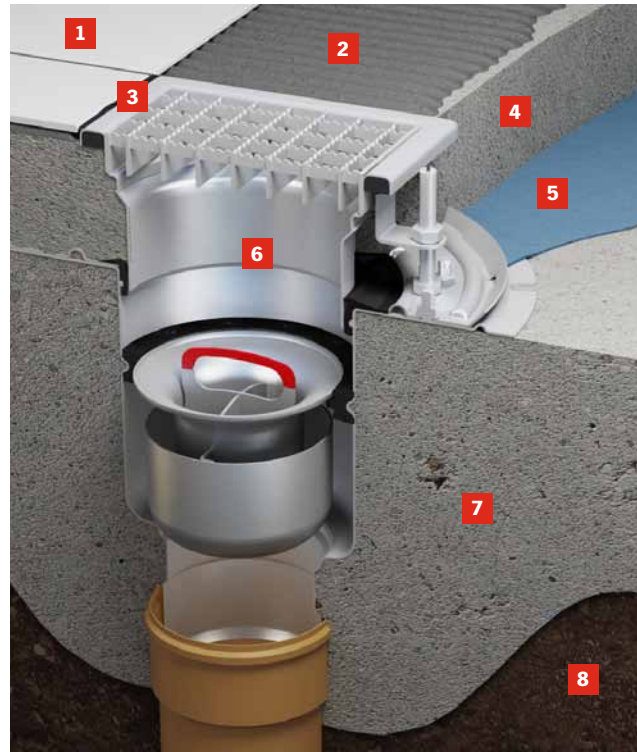
Telescopic flanged gully and raising flanged piece installed in suspended concrete slab construction

- 1** Ceramic tiles
- 2** Tile cement
- 3** Mastic sealant
- 4** Floor screed
- 5** Water proof membrane (WPM)
- 6** Insulation
- 7** Double flange gully
- 8** Suspended concrete slab core-boarded to accept gully body



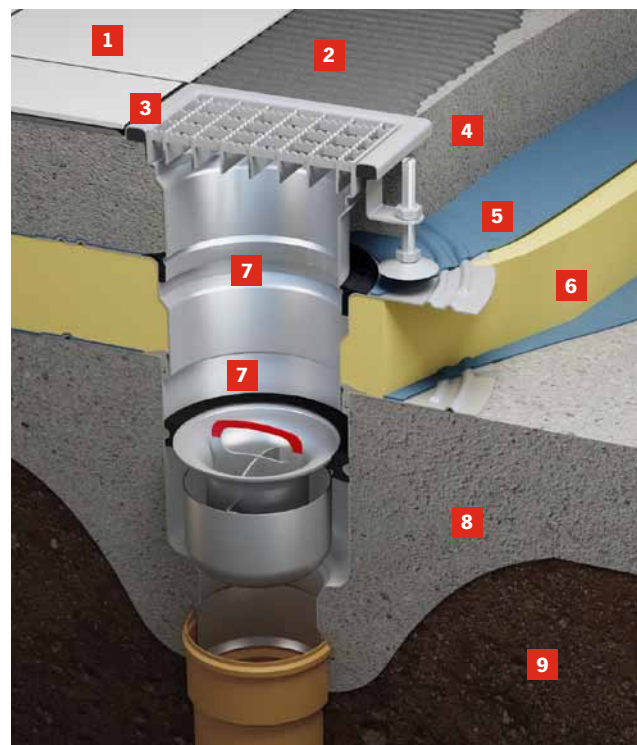
Telescopic flanged gully installed in solid concrete floor

- 1** Ceramic tiles
- 2** Tile cement
- 3** Mastic sealant
- 4** Floor screed
- 5** Water proof membrane (WPM)
- 6** Flange gully
- 7** Solid concrete floor slab
- 8** Compacted soil



Telescopic flanged gully and raising piece installed in solid concrete floor

- 1** Ceramic tiles
- 2** Tile cement
- 3** Mastic sealant
- 4** Floor screed
- 5** Water proof membrane (WPM)
- 6** Insulation
- 7** Double flange gully
- 8** Solid concrete floor slab
- 9** Compacted soil



Fixed height gully installed in solid concrete floor

- 1** Ceramic tiles
- 2** Tile cement
- 3** Mastic sealant
- 4** Floor screed
- 5** Damp proof membrane (DPM)
- 6** Gully
- 7** Outlet pipe
- 8** Floor slab
- 9** Compacted soil

