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| CI/SfB (52.6) | |

ACO Building Drainage

Drainage Systems



Product catalogue

ACO Modular 125

Stainless Steel Channel Drainage System





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 fabrication 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 £600 million worldwide with production facilities in the UK, Germany, France, Switzerland, Denmark, Spain, Poland, Czech Republic, Australia and the USA. In total more than 3900 people are employed in over 40 countries throughout the world.

ACO Building Drainage

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ACO Building Drainage

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

ACO Building Drainage

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- For all product brochures, imagery or merchandising material requests.



collect:

- Stainless Steel and Galvanised Steel Channels
- Stainless Steel Gullies
- Pipe System
- Roof / Balcony Drainage
- Wetroom & Shower Drainage



clean:

- Grease Management Systems



hold:

- Anti-flood Backflow Protection Systems



release:

- Lifting Stations*

*Available in 2014

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For quick access to our website, scan:



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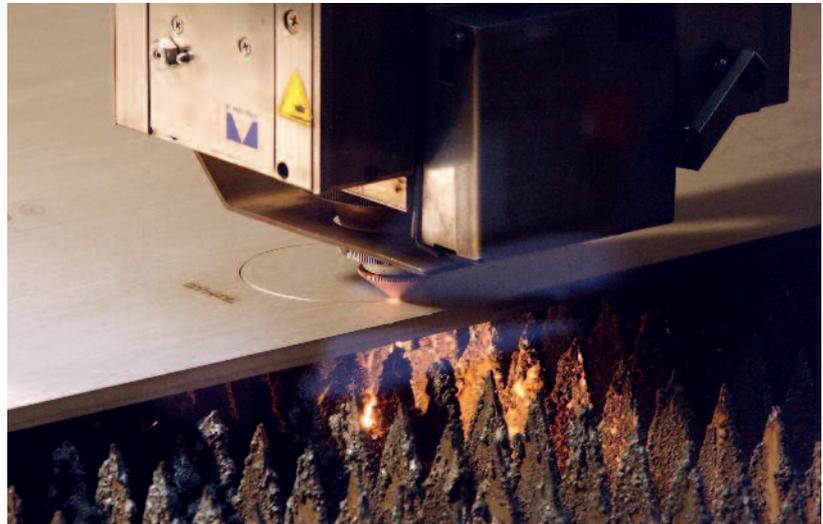
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System Overview

The ACO Building Drainage Modular 125 stainless steel linear drainage system takes full advantage of the significant investment in our state-of-the-art manufacturing plant and offers improved performance together with a fully flexible stainless steel drainage system suitable for most applications – off the shelf.

Significant system advantages include:

- Fully tested and classified to BS EN 1433 – Drainage channels for vehicular and pedestrian areas for enhanced operational confidence.
- Fully pickle passivated (see page 45).
- Vee-bottomed profiled channel for enhanced flow efficiency at low flow rates, for a cleaner, hygienic system.
- Wide range of constant depth and sloping invert channels and accessories.
- Wide variety of invert depths and channel falls to suit most applications.
- Unique optional grating security locks.
- Wide grating choice.
- Lightweight channel sections minimise the risk to construction employees during installation.



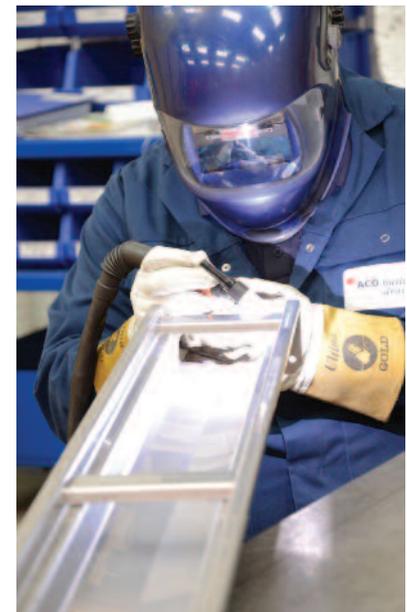
ACO Modular 125 is manufactured in corrosion resistant 304 grade austenitic stainless steel that is fully pickle passivated to remove embedded iron and chromium-depleted weld-zones.

The enhanced corrosion resistance and extreme durability of fully pickle passivated stainless steel make the material suitable for many applications demanding a reliable, long-life performance.

A key attribute of stainless steel that is often overlooked is that the raw material is manufactured from a minimum of 70%



recycled materials, therefore significantly contributing to a sustainable environment. Additionally, stainless steel is 100% recyclable if products are ever removed or come to the end of their working life.



In particularly chemically aggressive applications, Modular 125 is available in 316 grade stainless steel to special order.

Typical Applications

Food Processing



Brewing, Bottling and Canning



Retail



School and Leisure



Chemical and Pharmaceutical



Human and Animal Health Care



Note:

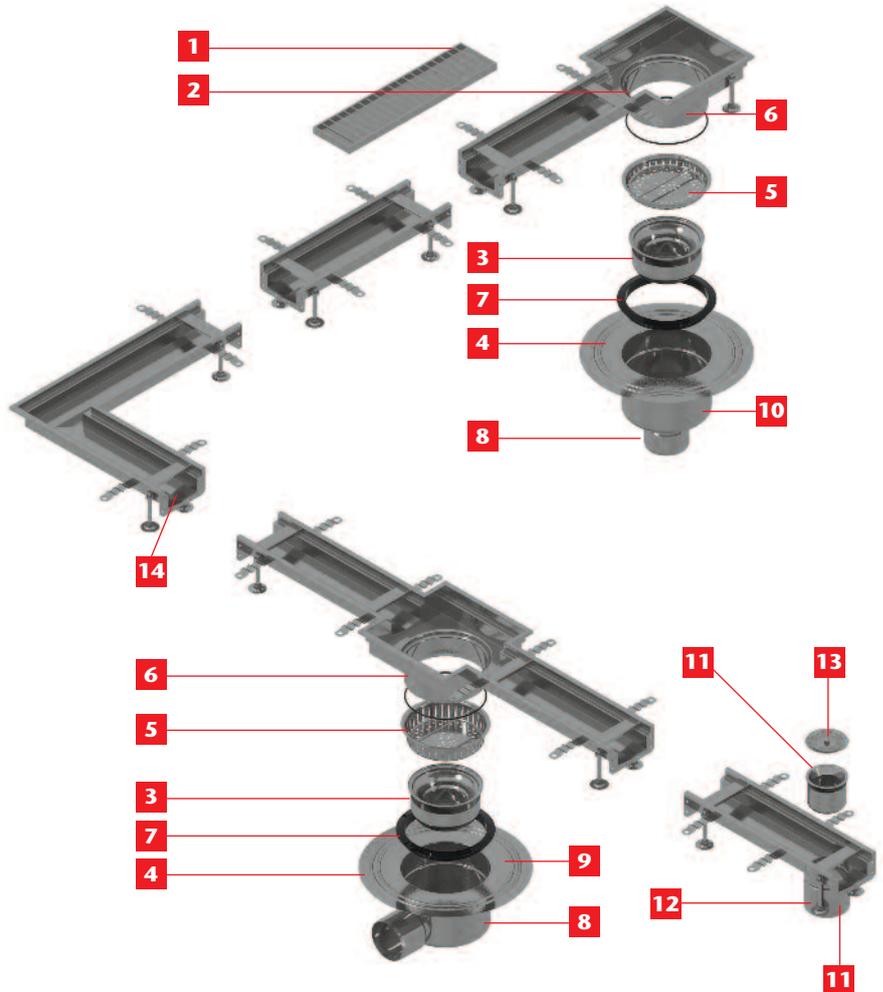
ACO Modular 125 in 304 stainless steel is not suitable for swimming poolside or changing areas which have no dividing wall from the pool area. For these applications bespoke 316 Stainless Steel Channel drainage can be manufactured.

Please contact the ACO Building Drainage Team on **01462 816666** or e-mail abdtechnical@aco.co.uk for further details.

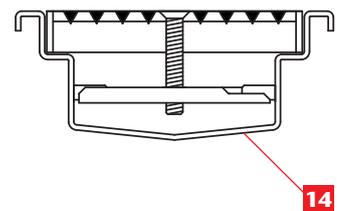
Features and Benefits

Modular Range

- 1** Overall system installation conforms to BS EN 1433 installation and load test performance. 11 grating types are available with loading class A15 to C250.
- 2** Gully tops are welded to the channel eliminating potential bug trap areas. The gully body can be connected to an ACO Gully 218 trapped body for installation convenience.
- 3** All gully bodies are supplied complete with a one-piece foul air trap. Foul air traps on both the horizontal and vertical gullies are completely removable to allow easy rodding access to the connecting pipework for cleaning and maintenance. 50mm trap water seal conforms to BS EN 1253.
- 4** Flow rate up to 6.3 l/s for vertical and for 4.5 l/s for horizontal is available from outlet gullies.
- 5** An optional silt basket collects debris effectively.
- 6** Telescopic gully arrangement provides variable invert connection capability.
- 7** All gullies supplied with integrated seal to gully top.
- 8** Chamfered spigot outlets provide easy push-fit connection to drainage pipes.
- 9** All gully bodies available with optional damp proof membrane attachment options.
- 10** Gullies have deep rounded contours to deter silt build up and make cleaning easier.
- 11** 110mm dia spigot outlets with optional in-line foul air trap provide a 1.2 l/s flow capacity.
- 12** Spigot outlets can be supplied with a foul air trap which has a water trap depth of 50mm meeting the requirements of BS EN 1253. The foul air trap allows for an optional sieve to be used.



- 13** Optional sieve for 110mm diameter spigot outlet. Debris basket can be supplied if foul air trap is omitted.
- 14** Vee-bottomed channel profile enhances flow efficiency at low flow rates for a cleaner, hygienic system.

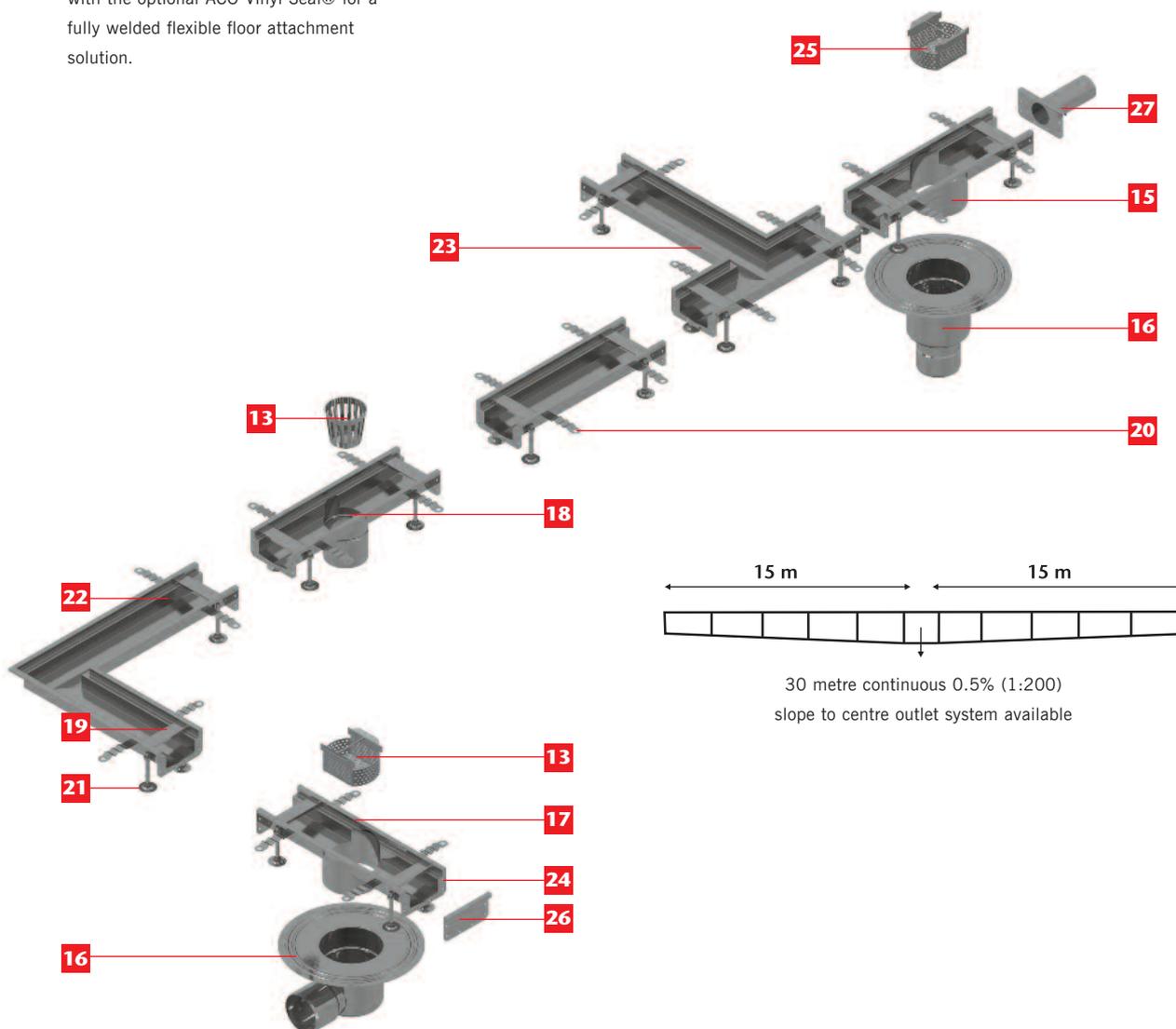


Features and Benefits

- 15** Discreet channel gully outlets provide greater flow than a spigot outlet and also maintain a consistent width to the channel where aesthetic considerations are important.
- 16** The discreet channel gully can be connected to ACO Gully 157 trapped body for installation convenience.
- 17** Discreet channel gully flow rates up to 4.5 l/s and 2.8 l/s for vertical and horizontal outlet gullies respectively.
- 18** Channel and gully tops finished with a brushed 14mm wide edge detail providing an attractive and practical interface with all surrounding floor finishes. All products are compatible with the optional ACO Vinyl Seal® for a fully welded flexible floor attachment solution.

- 19** Channels are supplied complete with removable spacer bars to aid installation. They are easily removed prior to grating installation.
- 20** Concrete anchor ties are supplied welded to the channel for increased operational robustness following installation.
- 21** Levelling feet assist in setting the channel out to finished floor level and provide a convenient concrete anchor.
- 22** Corner units accommodate standard 500mm grating lengths.

- 23** Branch units accommodate standard 500mm grating lengths.
- 24** Flange plates are welded to each channel section and allow multi-point clamping of the neoprene sponge gasket for a waterproof seal.
- 25** An optional discreet channel silt basket collects debris effectively.
- 26** Closing end plates available for all level invert channel depths.
- 27** Outlet end cap available to special order.



Channel Edge Options

Modular 125 channels are available with different edge details to suit varying load requirements and the surrounding floor material.

Standard Channel



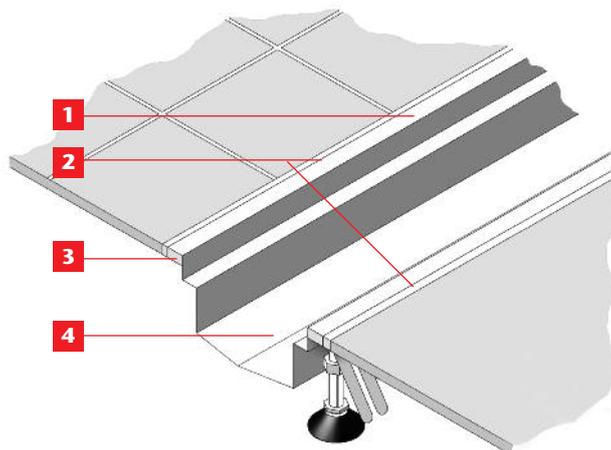
Suitable for tiled, concrete and epoxy resin floors in pedestrian and light industrial applications. Suitable for Load Class A15 & B125 to BS EN 1433.

- 1** Channel edge
- 2** Mastic sealant
- 3** PVC infill
- 4** Standard channel with vee profile
- 5** ACO Building Drainage VinylSeal® for welded vinyl sheet flooring

PVC Infill

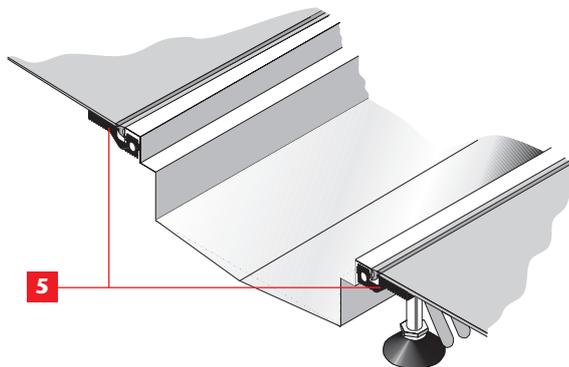


The underside of the channel can be infilled with a PVC strip to provide additional strength in dense traffic areas. PVC Infill is supplied loose for installation on site. Required for Load Class C250 to BS EN 1433.



ACO Vinyl Seal®

Ideal for vinyl/flexible sheet flooring applications. The fully welded system is watertight and improves hygiene performance by eliminating cumbersome mechanical clamping systems.



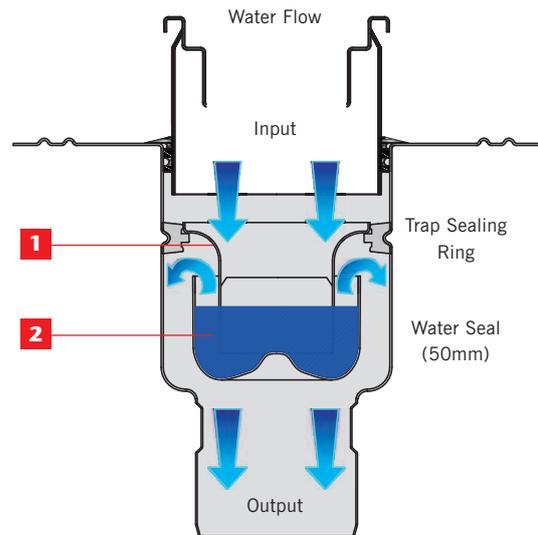
Note:

ACO Vinyl Seal® is **not suitable for wooden or suspended floors.**

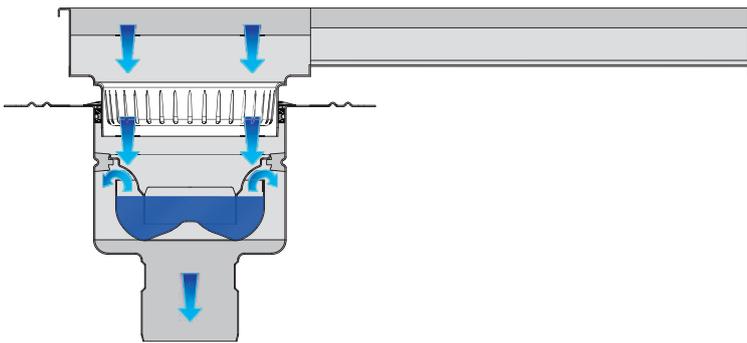
Contact the ACO Building Drainage Team on 01462 816666 or email abdtechnical@aco.co.uk for assistance.

Foul Air Traps

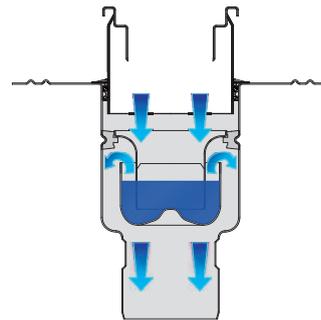
- 1** Foul Air Traps (FATs) are devices which contain a water seal and prevent gasses and stale air from passing back from stagnant or dirty water within connecting pipework.
 - 2** A water seal level is maintained in the gullies by means of weirs formed by the trap unit fitted into the gully body. (See Diagram)
- The Foul Air Traps are fully removable to allow for rodding of connecting pipework and easy cleaning of the gully body.



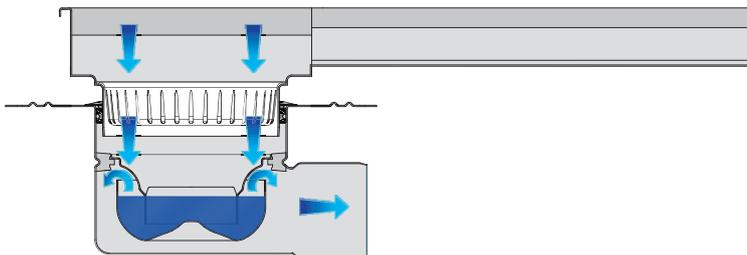
ACO Modular 125 Vertical Outlet Gully



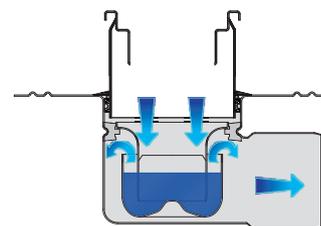
Discreet Channel Vertical Outlet



ACO Modular 125 Horizontal Outlet Gully



Discreet Channel Horizontal Outlet



- 3**  Indicates water flows through foul air traps

Note:

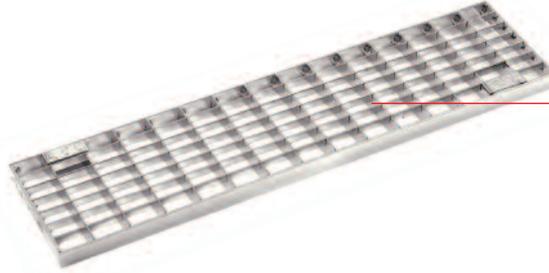
50mm water seal depth.

Helpful Hint: Foul Air Traps can dry out if used infrequently

Grating Options

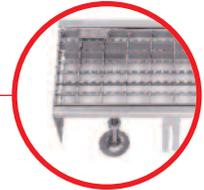
Plain Mesh

Load class A15 & C250
Electropolished 304 stainless steel



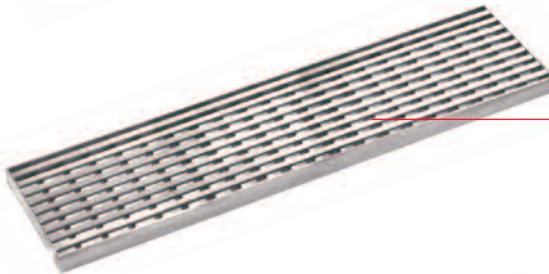
Slip resistant mesh

Load class A15 & C250
Electropolished 304 stainless steel



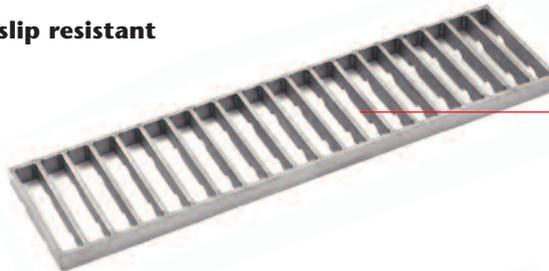
Heelsafe

Load class B125
Linished 304 stainless steel
Locking option available



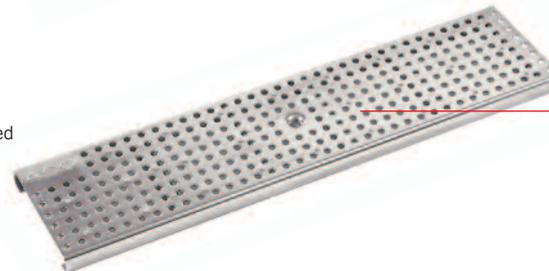
Ladder – reversible plain or slip resistant

Load class C250
Pickle passivated 304 stainless steel



Perforated

Load class C250
Pickle passivated 304 stainless steel
Recess for optional grating locking provided



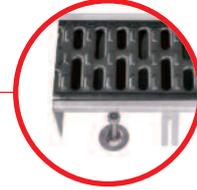
Note:

All grating designs load tested and certified to BS EN 1433. Declaration of Conformity available on request.
Gratings supplied as standard without locking. Details of grating locking kits available are described on page 32.
Please refer to page 31 for PVC Infill requirement for applications at Load Class C250.

Grating Options

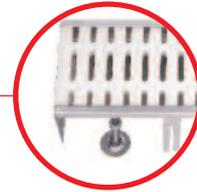
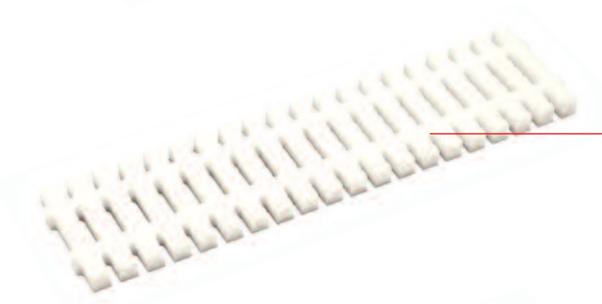
Slotted Locked

Load class A15 & C250
 Pickle passivated 304 stainless steel
 Recess for optional grating locking provided



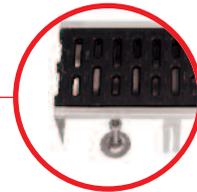
White Plastic

Load class A15
 Polyethylene



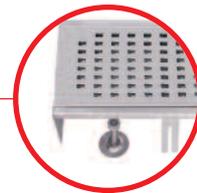
Composite (black and white)

Load class C250
 Recess for optional grating locking provided



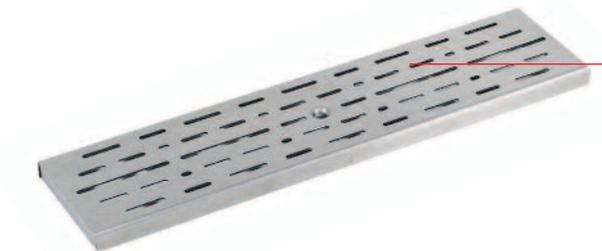
Quadrato – plain or slip resistant

Load class A15
 Linished 304 stainless steel
 Locking option available



Intercept – plain or slip resistant

Load class A15
 Linished 304 stainless steel
 Locking option available



Note:

All grating designs load tested and certified to BS EN 1433. Declaration of Conformity available on request.
 Gratings supplied as standard without locking. Details of grating locking kits available are described on page 32.
 Please refer to page 31 for PVC Infill requirement for applications at Load Class C250.

Load Class and Wheel Loads

The ACO Modular 125 stainless steel channel drainage system conforms to appropriate European standards in order to provide specifiers and installers with the confidence that products will achieve a known reliable performance.

The ACO Modular 125 channel drainage system has been tested in accordance with BS EN 1433¹ and complimentary gully systems to BS EN 1253².

The table below indicates a practical approximate comparison of Load Classes to aid specifiers select products appropriate to an application.



| Application | BS EN 1433 (Drainage Channels) and BS EN 124 (Manhole and Gully Tops) | BS EN 1253 (Gullies for Buildings) <small>*Draft prEN1253</small> | FACTA | Slow Moving Wheel Load (Tonnes) | |
|-------------|--|--|-------|------------------------------------|----------------|
| | | | | Pneumatic Tyres | Solid Tyres |
| | - | H1.5 | - | Non-load bearing | |
| | A15 | K3 | A | 0.5 | N/A |
| | | L15 | 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 | 2.0 |

Standards references:

¹BS EN 1433 - Drainage channels for vehicular and pedestrian areas.

²BS EN 1253 – Gullies for buildings.

Other useful references:

BS EN 124 - Gully tops and manhole tops for vehicular and pedestrian areas.

FACTA specification via <http://www.facta.org.uk/specification.pdf>

Specification and Product Selection

ACO Modular 125 - Standard Products



The steps below guide customers through ACO Modular 125 product selection and specification ensuring that all application considerations and aspects of the channel drainage system are covered. The ACO Building Drainage team can also provide a take-off (bill of materials) and estimating service based on your plan details.

ACO Modular 125 - Customised Products



Occasionally it is necessary to shorten a channel and grating, or provide an outlet or inlet beyond those positions available in our standard product range. All of these modifications are easily accommodated within the ACO Modular 125 product range and our manufacturing facilities. The ACO Building Drainage team can provide technical assistance and an estimating service based on your plan details using customised product.

Step 1 - Load consideration

| Description | Helpful Hints | General Considerations | Page |
|---|--|---|------|
| <ul style="list-style-type: none"> Determine appropriate Load Class to BS EN 1433 for the application. | <ul style="list-style-type: none"> Always allow for the highest loading and consider future use where possible. For industrial applications where pallet trucks and fork lift trucks may access the system, assess vehicle wheel loads as these can vary depending on the vehicle. | <ul style="list-style-type: none"> Vehicles with solid tyres impart greater stress on gratings compared to pneumatic tyres. Do not use slip resistant mesh or ladder gratings in vehicle turning areas. | 12 |

Step 2 - Outline plan

| Description | Helpful Hints | General Considerations | Page |
|--|--|---|------|
| <ul style="list-style-type: none"> Produce a plan of the proposed installation, identifying outlet points and invert depths at outlet points. | <ul style="list-style-type: none"> ACO Building Drainage offers a free hydraulic calculation service which can optimise channel depths for a given capacity requirement. Contact the ACO Building Drainage Design Services Team on 01462 816666 or email abdtechnical@aco.co.uk for further details. | <ul style="list-style-type: none"> Built-in fall (sloping invert) channels provide a degree of self-cleansing and should be used where possible. However, level invert or flat channels can function hydraulically where construction depth is restricted. | 6-7 |

Specification and Product Selection

Step 3 - Selecting an outlet

| Description | Helpful Hints | General Considerations | Page |
|---|---|--|-------|
| <ul style="list-style-type: none"> Select an outlet with an appropriate flow rate which meets any invert restrictions. | <ul style="list-style-type: none"> Outlets will be at the lowest part of the system therefore select the deepest possible invert to allow for falls within the channels connected to it. Horizontal outlets offer shallower outlet points but are not as efficient hydraulically. | <ul style="list-style-type: none"> Consider both maintenance facilities and aesthetics. | 16-27 |

Outlet option 1 - Spigot outlet

| Description | Maintenance | Aesthetics | Page |
|--|--|--|-------|
| <ul style="list-style-type: none"> Ø110mm spigot outlets can be supplied with or without a foul air trap. If no foul air trap is used a sediment basket can be installed. If a foul air trap is used a sieve can be fitted. | <ul style="list-style-type: none"> Sediment baskets and sieves require periodic removal and cleaning. Complete cleaning will require removal of the foul air trap. Note: Jetting or rodding is achieved via the removal of the foul air trap. | <ul style="list-style-type: none"> Spigot outlets are not visually intrusive and can be located by visual inspection along a channel run. | 16-18 |

Outlet option 2 - Discreet channel gully

| Description | Maintenance | Aesthetics | Page |
|---|--|--|-------|
| <ul style="list-style-type: none"> Ø142mm discreet channel gully provides greater flow rates than spigot outlets. Flow rate is optimised in the 125mm deep gully. | <ul style="list-style-type: none"> Sediment baskets and sieves require periodic removal and cleaning. Complete cleaning will require removal of the foul air trap. Note: Jetting or rodding is achieved via the removal of the foul air trap. | <ul style="list-style-type: none"> Discreet channel gullies are not visually intrusive and can be located by visual inspection along a channel run. | 19-22 |

Outlet option 3 - Gully outlet

| Description | Maintenance | Aesthetics | Page |
|--|--|--|-------|
| <ul style="list-style-type: none"> One or two-way gully outlet options with a Ø200mm outlet provide greater hydraulic capacity than discreet channel gullies. Hydraulic capacity is maximised in vertical orientation. | <ul style="list-style-type: none"> Silt baskets and sieves require periodic removal and cleaning. Complete cleaning will require removal of the foul air trap. Note: Jetting or rodding is achieved via the removal of the foul air trap. Gully bodies have rounded bowls to minimise silt build up. | <ul style="list-style-type: none"> The gully top is wider than the channel and is therefore identifiable within a channel run. Gully top grating options do not include standard Slotted, Plastic, Composite, Quadrato or Slotted Intercept grating styles which are available in the ACO Modular 125 grating range. | 23-27 |

Specification and Product Selection

Step 4 - Adding channels

| Description | Helpful Hints | General Considerations | Page |
|--|--|---|-------|
| <ul style="list-style-type: none"> Start at the outlet position and work back adding channels as appropriate. Where combined falls or sloping falls are required, ensure there is a logical fall to the outlet where the deepest channel sections are positioned. | <ul style="list-style-type: none"> ACO Modular 125 corners and branch units are level inverts and therefore consideration is required when planning channel layouts. Using longer length channels saves cost, minimises joints and reduces installation time. Shortening built-in fall channels is possible only at the start of a run. To adjust a built-in fall mid-run, it is necessary to introduce a level invert channel. | <ul style="list-style-type: none"> Hydraulic flow can be effected by introducing level invert sections within a sloping channel run. | 28-30 |

Step 5 - Adding end plates

| Description | Helpful Hints | General Considerations | Page |
|--|---------------|---|------|
| <ul style="list-style-type: none"> Terminate the drainage system with end plates corresponding to the channel invert at ends. | N/A | <ul style="list-style-type: none"> The addition of each end plate will increase length of channel run by 14mm. | 31 |

Step 6 - Channel edge options

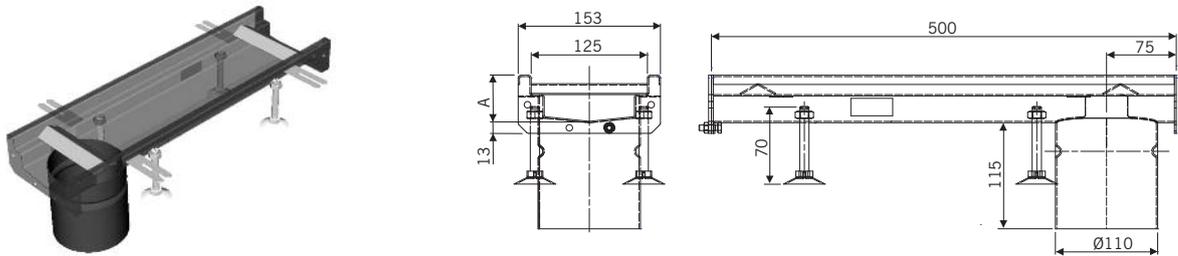
| Description | Helpful Hints | General Considerations | Page |
|--|--|---|-------|
| <ul style="list-style-type: none"> Select channel edge detail appropriate for the Load Class and flooring finish. | <ul style="list-style-type: none"> PVC infill is a low cost option for improving overall channel durability in trafficked areas. ACO Vinyl Seal® is not suitable for wooden or suspended floors. | <ul style="list-style-type: none"> For Load Class C250, PVC infill will be supplied as standard. Vinyl / flexible sheet flooring can be seamlessly welded to ACO Vinyl Seal®. | 31-32 |

Step 7 - Select gratings

| Description | Helpful Hints | General Considerations | Page |
|--|---|--|-------|
| <ul style="list-style-type: none"> Confirm correct Load Class for the application and select appropriate gratings style from the ACO Modular 125 grating range. | <ul style="list-style-type: none"> Security lockings can be specified to all gratings at extra cost. Do not use slip resistant gratings where vehicles are likely to turn on the grate. | <ul style="list-style-type: none"> For bare foot areas consider Heelsafe, Quadrato, Intercept or Plastic grating styles. Consider grating availability for both channel and gully. | 33-37 |

Spigot Outlets

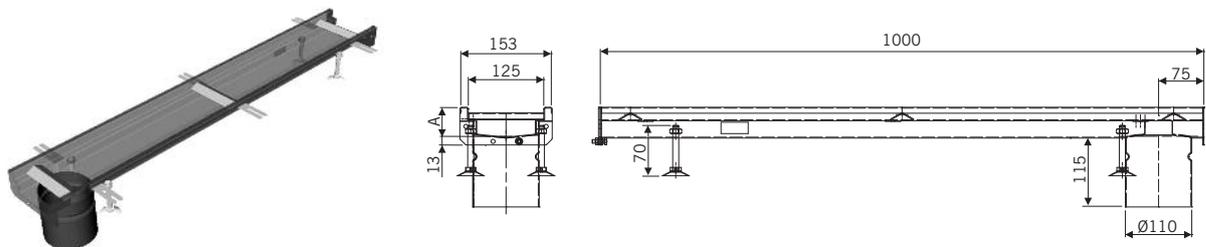
500mm End Spigot Outlets



| Part No | Description | A (mm) | Flow Rate* (l/s) | Weight (kg) |
|---------|-------------------------|--------|------------------|-------------|
| 105175 | 500mm End Spigot Outlet | 50 | 1.2 | 2.6 |
| 105176 | | 65 | 1.2 | 2.8 |
| 105177 | | 80 | 1.2 | 3.1 |
| 105178 | | 95 | 1.2 | 3.3 |
| 105179 | | 110 | 1.2 | 3.5 |
| 105180 | | 125 | 1.2 | 3.7 |

*Assumes use of 110 outlet foul air trap, part number 97217 (see page 18)

1000mm End Spigot Outlets



| Part No | Description | A (mm) | Flow Rate* (l/s) | Weight (kg) |
|---------|--------------------------|--------|------------------|-------------|
| 105183 | 1000mm End Spigot Outlet | 50 | 1.2 | 4.2 |
| 105184 | | 65 | 1.2 | 4.6 |
| 105185 | | 80 | 1.2 | 5.0 |
| 105186 | | 95 | 1.2 | 5.4 |
| 105187 | | 110 | 1.2 | 5.8 |
| 105188 | | 125 | 1.2 | 6.2 |

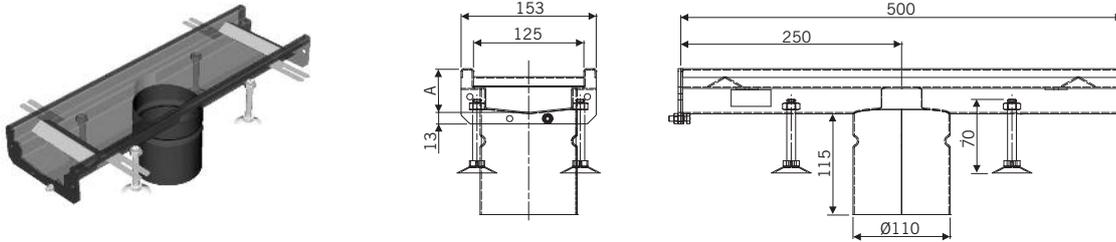
*Assumes use of 110 outlet foul air trap, part number 97217 (see page 18)

Note:

For applications requiring 316 stainless steel channel drainage please contact the ACO Building Drainage Team on 01462 816666 or e-mail abdtechnical@aco.co.uk for further details.

Spigot Outlets

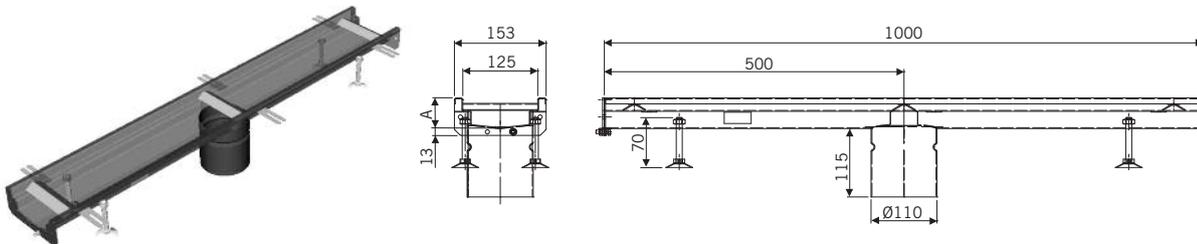
500mm Centre Spigot Outlets



| Part No | Description | A (mm) | Flow Rate* (l/s) | Weight (kg) |
|---------|----------------------------|--------|------------------|-------------|
| 105191 | 500mm Centre Spigot Outlet | 50 | 1.2 | 2.7 |
| 105192 | | 65 | 1.2 | 2.9 |
| 105193 | | 80 | 1.2 | 3.1 |
| 105194 | | 95 | 1.2 | 3.3 |
| 105195 | | 110 | 1.2 | 3.5 |
| 105196 | | 125 | 1.2 | 3.7 |

*Assumes use of 110 outlet foul air trap, part number 97217 (see page 18)

1000mm Centre Spigot Outlets



| Part No | Description | A (mm) | Flow Rate* (l/s) | Weight (kg) |
|---------|-----------------------------|--------|------------------|-------------|
| 105199 | 1000mm Centre Spigot Outlet | 50 | 1.2 | 4.2 |
| 105200 | | 65 | 1.2 | 4.6 |
| 105201 | | 80 | 1.2 | 5.1 |
| 105202 | | 95 | 1.2 | 5.4 |
| 105203 | | 110 | 1.2 | 5.8 |
| 105204 | | 125 | 1.2 | 6.2 |

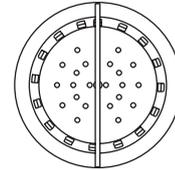
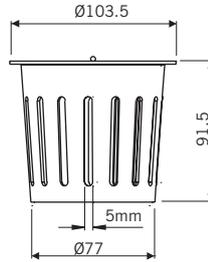
*Assumes use of 110 outlet foul air trap, part number 97217 (see page 18)

Note:

For applications requiring 316 stainless steel channel drainage please contact the ACO Building Drainage Team on **01462 816666** or e-mail abdtechnical@aco.co.uk for further details.

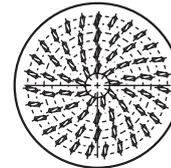
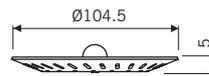
Spigot Outlet Accessories

Sediment Basket



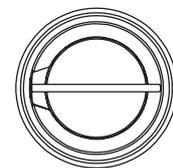
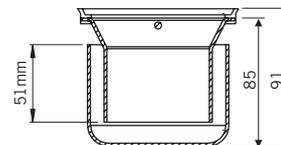
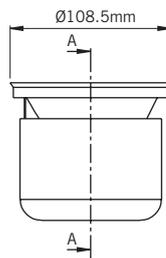
| Part No | Description | Weight (kg) |
|---------|-------------------------|-------------|
| 21510 | Sediment Basket S/S 304 | 0.1 |

Sieve



| Part No | Description | Weight (kg) |
|---------|---------------|-------------|
| 97235 | Sieve S/S 304 | 0.1 |

Ø110mm Outlet Foul Air Trap



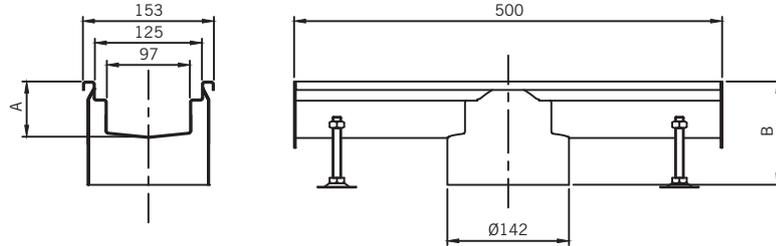
| Part No | Description | Flow Rate (l/s) | Weight (kg) |
|---------|------------------------------------|-----------------|-------------|
| 97217 | 110mm Outlet Foul Air Trap S/S 304 | 1.2 | 0.3 |

Note:

For applications requiring 316 stainless steel channel drainage please contact the ACO Building Drainage Team on **01462 816666** or e-mail abdtechnical@aco.co.uk for further details.

Discreet Channel Gullies

500mm Discreet Channel Gully



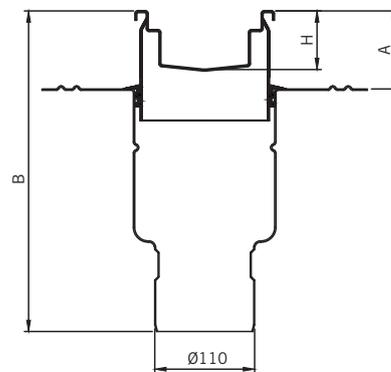
| Part No | Description | A (mm) | B (mm) | Flow Rate* (l/s) | Weight (kg) |
|---------|---|--------|--------|------------------|-------------|
| 105381 | Discreet Channel Gully S/S 304 | 65 | 120 | 2.8 - 4.5 | 3.1 |
| 105382 | | 95 | 150 | 2.8 - 4.5 | 3.5 |
| 105383 | | 125 | 180 | 2.8 - 4.5 | 4.0 |
| 105384 | Sediment Basket 0.55 litre capacity S/S 304 | N/A | N/A | - | 0.1 |

*Flow rate dependant on horizontal or vertical outlet gully body selection.

Discreet Channel Gully Assembly Inverts

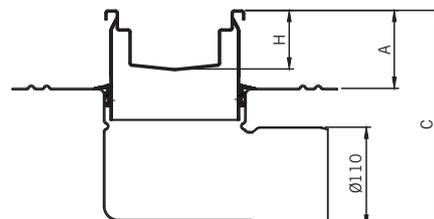
Discreet Channel Gully with Vertical Gully Outlet

| | H = 65mm | H = 95mm | H = 125mm |
|-------|----------|----------|-----------|
| A Min | 70 | 100 | 130 |
| A Max | 115 | 145 | 175 |
| B Min | 339 | 369 | 399 |
| B Max | 384 | 414 | 444 |



One Way and Two Way Gully Tops with Horizontal Gully Outlet

| | H = 65mm | H = 95mm | H = 125mm |
|-------|----------|----------|-----------|
| A Min | 90 | 120 | 150 |
| A Max | 115 | 145 | 175 |
| C Min | 243 | 273 | 303 |
| C Max | 268 | 298 | 328 |



Note:

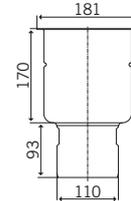
The Discreet Channel Gully requires the selection of appropriate gully body as shown on pages 20-21.

For applications requiring 316 stainless steel channel drainage please contact the ACO Building Drainage Team on **01462 816666**

or e-mail abdtechnical@aco.co.uk for further details.

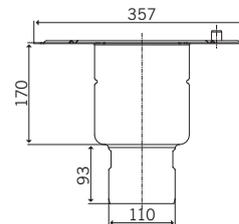
ACO Gully 157 for use with Discreet Channel Gully

ACO Gully 157 - Telescopic



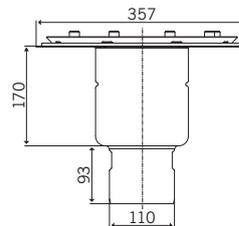
| Part No | Description | Flange Type | Outlet Size | Flow Rate* (l/s) | Weight (kg) |
|---------|--------------------------------------|-----------------|-------------|------------------|-------------|
| 408055 | Telescopic – vertical outlet S/S 304 | Location flange | Ø110mm | 3.9 - 4.2 l/s | 2.3 |

*Flow rate will depend on telescopic height configuration when installed.



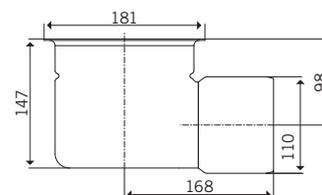
| Part No | Description | Flange Type | Outlet Size | Flow Rate* (l/s) | Weight (kg) |
|---------|--------------------------------------|-------------------------|-------------|------------------|-------------|
| 408057 | Telescopic – vertical outlet S/S 304 | Adhesive bonding flange | Ø110mm | 3.9 - 4.2 l/s | 3.3 |

*Flow rate will depend on telescopic height configuration when installed.



| Part No | Description | Flange Type | Outlet Size | Flow Rate* (l/s) | Weight (kg) |
|---------|--------------------------------------|----------------------------|-------------|------------------|-------------|
| 408059 | Telescopic – vertical outlet S/S 304 | Mechanical clamping flange | Ø110mm | 3.9 - 4.2 l/s | 4.3 |

*Flow rate will depend on telescopic height configuration when installed.



| Part No | Description | Flange Type | Outlet Size | Flow Rate* (l/s) | Weight (kg) |
|---------|--|-----------------|-------------|------------------|-------------|
| 408079 | Telescopic – horizontal outlet S/S 304 | Location flange | Ø110mm | 3.2 - 3.9 l/s | 2.2 |

*Flow rate will depend on telescopic height configuration when installed.

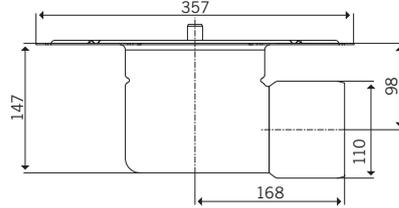
Note:

For assembled Discreet Channel Gully and gully body heights, refer to page 19.

ACO Gully 157 available in 316 Stainless Steel. Please refer to ACO Stainless Steel Gully Systems product catalogue or contact the ACO Building Drainage Team on **01462 816666** or e-mail **abdtechnical@aco.co.uk** for further details.

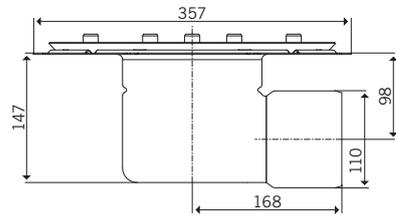
ACO Gully 157 for use with Discreet Channel Gully

ACO Gully 157 - Telescopic



| Part No | Description | Flange Type | Outlet Size | Flow Rate* (l/s) | Weight (kg) |
|---------|--|-------------------------|-------------|------------------|-------------|
| 408081 | Telescopic – horizontal outlet S/S 304 | Adhesive bonding flange | Ø110mm | 3.2 - 3.9 l/s | 3.2 |

*Flow rate will depend on telescopic height configuration when installed.



| Part No | Description | Flange Type | Outlet Size | Flow Rate* (l/s) | Weight (kg) |
|---------|--|----------------------------|-------------|------------------|-------------|
| 408083 | Telescopic – horizontal outlet S/S 304 | Mechanical clamping flange | Ø110mm | 3.2 - 3.9 l/s | 4.1 |

*Flow rate will depend on telescopic height configuration when installed.



All products listed on pages 20 & 21 come complete with Foul Air Trap (see page 22 for replacements).

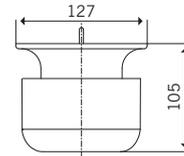
Note:

For assembled Discreet Channel Gully and gully body heights, refer to page 19.

ACO Gully 157 available in 316 Stainless Steel. Please refer to ACO Stainless Steel Gully Systems product catalogue or contact the ACO Building Drainage Team on **01462 816666** or e-mail **abdtechnical@aco.co.uk** for further details.

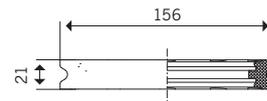
ACO Gully 157 Accessories / Replacements

Foul Air Trap



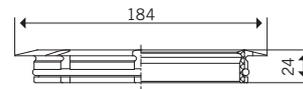
| Part No | Description | Weight (kg) |
|---------|-------------------------------------|-------------|
| 408200 | Foul Air Trap S/S 304 (replacement) | 0.8 |

Foul Air Trap Support Ring



| Part No | Description | Weight (kg) |
|---------|--|-------------|
| 408201 | Foul Air Trap Support Ring Nitrile (replacement) | 0.1 |

Friction Ring Installation Set



| Part No | Description | Weight (kg) |
|---------|--|-------------|
| 408205 | Friction Ring Installation Set (replacement) | 0.07 |

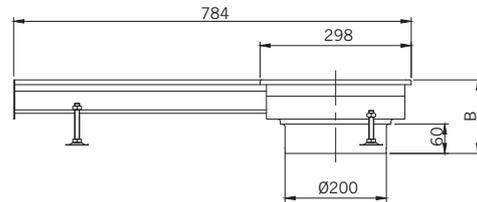
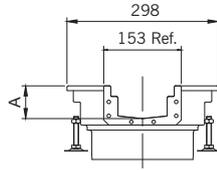
Note:

For assembled Discreet Channel Gully and gully body heights, refer to page 19.

ACO Gully 157 available in 316 Stainless Steel. Please refer to ACO Stainless Steel Gully Systems product catalogue or contact the ACO Building Drainage Team on **01462 816666** or e-mail abdtechnical@aco.co.uk for further details.

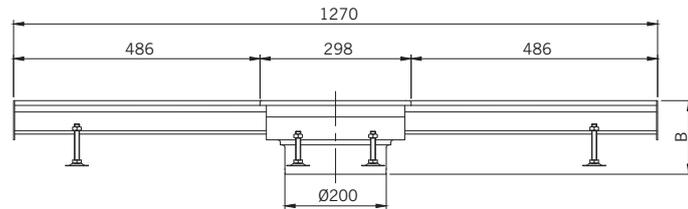
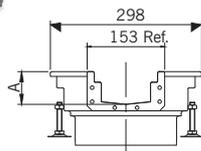
Gully Outlets

One Way Gully Top



| Part No | Description | A (mm) | B (mm) | Weight (kg) |
|---------|---------------------------|--------|--------|-------------|
| 105375 | One Way Gully Top S/S 304 | 65 | 145 | 4.6 |
| 105376 | | 95 | 175 | 5.2 |
| 105377 | | 125 | 205 | 6.2 |

One Way Gully Top



| Part No | Description | A (mm) | B (mm) | Weight (kg) |
|---------|---------------------------|--------|--------|-------------|
| 105378 | Two Way Gully Top S/S 304 | 65 | 145 | 4.6 |
| 105379 | | 95 | 175 | 5.2 |
| 105380 | | 125 | 205 | 6.2 |

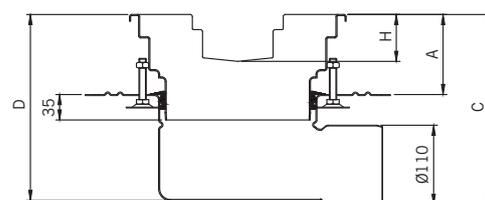
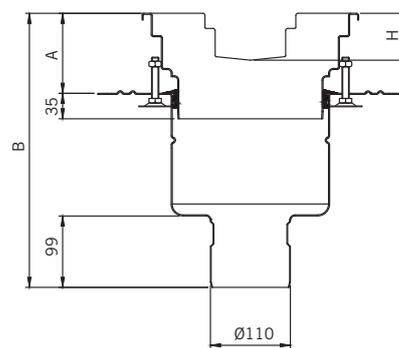
Gully Outlet Assembly Inverts

One Way and Two Way Gully Tops with Vertical Gully Outlet

| | H = 65mm | H = 95mm | H = 125mm |
|-------|----------|----------|-----------|
| A Min | 96 | 126 | 156 |
| A Max | 124 | 154 | 184 |
| B Min | 366 | 396 | 426 |
| B Max | 394 | 424 | 454 |

One Way and Two Way Gully Tops with Horizontal Gully Outlet

| | H = 65mm | H = 95mm | H = 125mm |
|-------|----------|----------|-----------|
| A Min | 96 | 126 | 156 |
| A Max | 124 | 154 | 184 |
| C Min | 244 | 274 | 304 |
| C Max | 272 | 302 | 332 |
| D Min | 221 | 251 | 281 |
| D Max | 249 | 279 | 309 |



Note:

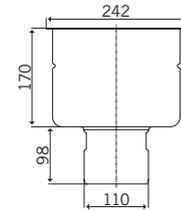
The One Way and Two Way Gully Tops require the selection of appropriate gully body as shown on pages 24 - 26.

For applications requiring 316 stainless steel channel drainage please contact the ACO Building Drainage Team

on 01462 816666 or e-mail abdtechnical@aco.co.uk for further details.

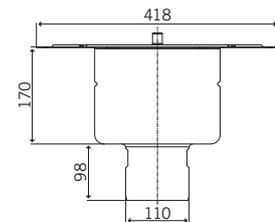
ACO Gully 218 for use with One Way and Two Way Gully Tops

ACO Gully 218 - Telescopic



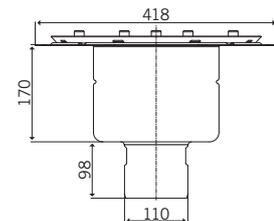
| Part No | Description | Flange Type | Outlet Size | Flow Rate* (l/s) | Weight (kg) |
|---------|--------------------------------------|-----------------|-------------|------------------|-------------|
| 408061 | Telescopic – vertical outlet S/S 304 | Location flange | Ø110mm | 5.0 - 6.3 l/s | 3.2 |

*Flow rate will depend on telescopic height configuration when installed.



| Part No | Description | Flange Type | Outlet Size | Flow Rate* (l/s) | Weight (kg) |
|---------|--------------------------------------|-------------------------|-------------|------------------|-------------|
| 408063 | Telescopic – vertical outlet S/S 304 | Adhesive bonding flange | Ø110mm | 5.0 - 6.3 l/s | 4.4 |

*Flow rate will depend on telescopic height configuration when installed.



| Part No | Description | Flange Type | Outlet Size | Flow Rate* (l/s) | Weight (kg) |
|---------|--------------------------------------|----------------------------|-------------|------------------|-------------|
| 408065 | Telescopic – vertical outlet S/S 304 | Mechanical clamping flange | Ø110mm | 5.0 - 6.3 l/s | 5.5 |

*Flow rate will depend on telescopic height configuration when installed.

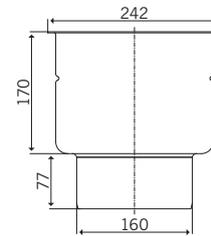
Note:

For assembled gully outlet and gully body heights, refer to page 23.

ACO Gully 218 available in 316 Stainless Steel. Please refer to ACO Stainless Steel Gully Systems product catalogue or contact the ACO Building Drainage Team on **01462 816666** or e-mail abdtechnical@aco.co.uk for further details.

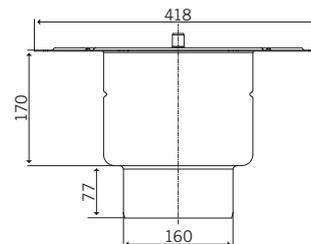
ACO Gully 218 for use with One Way and Two Way Gully Tops

ACO Gully 218 - Telescopic



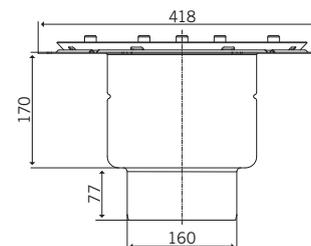
| Part No | Description | Flange Type | Outlet Size | Flow Rate* (l/s) | Weight (kg) |
|---------|--------------------------------------|-----------------|-------------|------------------|-------------|
| 408067 | Telescopic – vertical outlet S/S 304 | Location flange | Ø160mm | 5.0 - 6.3 l/s | 3.2 |

*Flow rate will depend on telescopic height configuration when installed.



| Part No | Description | Flange Type | Outlet Size | Flow Rate* (l/s) | Weight (kg) |
|---------|--------------------------------------|-------------------------|-------------|------------------|-------------|
| 408069 | Telescopic – vertical outlet S/S 304 | Adhesive bonding flange | Ø160mm | 5.0 - 6.3 l/s | 4.4 |

*Flow rate will depend on telescopic height configuration when installed.



| Part No | Description | Flange Type | Outlet Size | Flow Rate* (l/s) | Weight (kg) |
|---------|--------------------------------------|----------------------------|-------------|------------------|-------------|
| 408071 | Telescopic – vertical outlet S/S 304 | Mechanical clamping flange | Ø160mm | 5.0 - 6.3 l/s | 5.5 |

*Flow rate will depend on telescopic height configuration when installed.

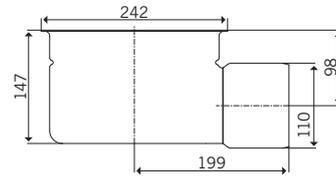
Note:

For assembled gully outlet and gully body heights, refer to page 23.

ACO Gully 218 available in 316 Stainless Steel. Please refer to ACO Stainless Steel Gully Systems product catalogue or contact the ACO Building Drainage Team on **01462 816666** or e-mail **abdtechnical@aco.co.uk** for further details.

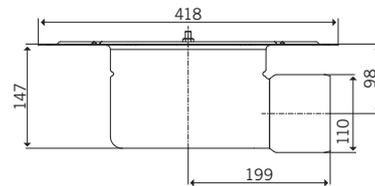
ACO Gully 218 for use with One Way and Two Way Gully Tops

ACO Gully 218 - Telescopic



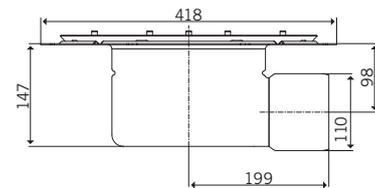
| Part No | Description | Flange Type | Outlet Size | Flow Rate* (l/s) | Weight (kg) |
|---------|--|-----------------|-------------|------------------|-------------|
| 408085 | Telescopic – horizontal outlet S/S 304 | Location flange | Ø110mm | 4.4 - 5.5 l/s | 2.2 |

*Flow rate will depend on telescopic height configuration when installed.



| Part No | Description | Flange Type | Outlet Size | Flow Rate* (l/s) | Weight (kg) |
|---------|--|-------------------------|-------------|------------------|-------------|
| 408087 | Telescopic – horizontal outlet S/S 304 | Adhesive bonding flange | Ø110mm | 4.4 - 5.5 l/s | 4.2 |

*Flow rate will depend on telescopic height configuration when installed.



| Part No | Description | Flange Type | Outlet Size | Flow Rate* (l/s) | Weight (kg) |
|---------|--|----------------------------|-------------|------------------|-------------|
| 408089 | Telescopic – horizontal outlet S/S 304 | Mechanical clamping flange | Ø110mm | 4.4 - 5.5 l/s | 4.4 |

*Flow rate will depend on telescopic height configuration when installed.



All products listed on pages 24 - 26 come complete with Foul Air Trap (see page 27 for replacements).

Note:

For assembled gully outlet and gully body heights, refer to page 23.

ACO Gully 218 available in 316 Stainless Steel. Please refer to ACO Stainless Steel Gully Systems product catalogue or contact the ACO Building Drainage Team on **01462 816666** or e-mail **abdtechnical@aco.co.uk** for further details.

ACO Gully 218 Accessories / Replacements

Silt Basket



| Part No | Description | Weight (kg) |
|---------|--|-------------|
| 408222 | Vertical Outlet Gully Silt Basket 1.4 litre capacity S/S 304 | 0.7 |
| 408223 | Horizontal Outlet Gully Silt Basket 0.7 litre capacity S/S 304 | 0.6 |

Foul Air Trap



| Part No | Description | Weight (kg) |
|---------|-------------------------------------|-------------|
| 408220 | Foul Air Trap S/S 304 (replacement) | 1.2 |

Foul Air Trap Support Ring



| Part No | Description | Weight (kg) |
|---------|--|-------------|
| 408221 | Foul Air Trap Support Ring Nitrile (replacement) | 1.2 |

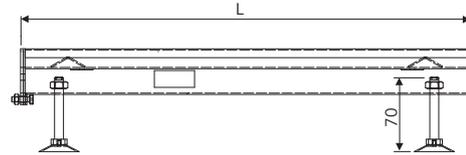
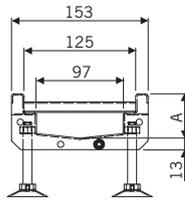
Friction Ring Installation Set



| Part No | Description | Weight (kg) |
|---------|--|-------------|
| 408225 | Friction Ring Installation Set (replacement) | 0.09 |

Level Invert Channels

Level Invert Channels



| Part No | Description | L (mm) | A (mm) | Weight (kg) |
|---------|------------------------------|--------|--------|-------------|
| 105119 | Level Invert Channel S/S 304 | 500 | 50 | 2.3 |
| 105120 | | | 65 | 2.5 |
| 105121 | | | 80 | 2.7 |
| 105122 | | | 95 | 2.9 |
| 105123 | | | 110 | 3.1 |
| 105124 | | | 125 | 3.4 |
| 105127 | | 1000 | 50 | 3.9 |
| 105128 | | | 65 | 4.2 |
| 105129 | | | 80 | 4.6 |
| 105130 | | | 95 | 5.0 |
| 105131 | | | 110 | 5.4 |
| 105132 | | 125 | 5.8 | |
| 105135 | | 2000 | 50 | 3.9 |
| 105136 | | | 65 | 4.2 |
| 105137 | | | 80 | 4.6 |
| 105138 | | | 95 | 5.0 |
| 105139 | | | 110 | 5.4 |
| 105140 | | 125 | 5.8 | |
| 105143 | | 3000 | 50 | 10.2 |
| 105144 | | | 65 | 11.3 |
| 105145 | 80 | | 12.4 | |
| 105146 | 95 | | 13.5 | |
| 105147 | 110 | | 14.6 | |
| 105148 | 125 | 15.7 | | |

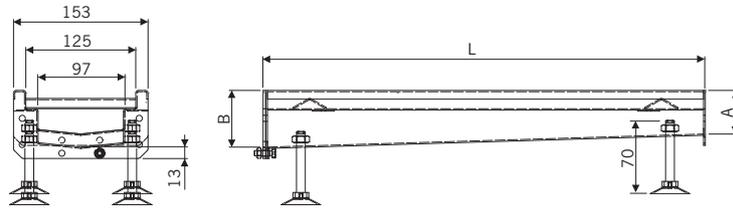
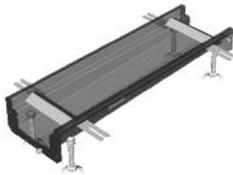
Note:

All channels are supplied complete with levelling feet, fixing ties, neoprene gaskets and fixings.

For applications requiring 316 stainless steel channel drainage please contact the ACO Building Drainage Team on **01462 816666** or e-mail abdtechnical@aco.co.uk for further details.

Sloping Invert Channels

Sloping Invert Channels



| Part No | Description | L (mm) | A (mm) | B (mm) | Weight (kg) |
|---------|--------------------------------|--------|--------|--------|-------------|
| 105151 | Sloping Invert Channel S/S 304 | 500 | 50 | 65 | 2.4 |
| 105152 | | | 65 | 80 | 2.5 |
| 105155 | | 1000 | 50 | 65 | 4.0 |
| 105156 | | | 65 | 80 | 4.4 |
| 105157 | | | 80 | 95 | 4.8 |
| 105158 | | 95 | 110 | 5.2 | |
| 105161 | | 2000 | 50 | 65 | 7.5 |
| 105162 | | | 65 | 80 | 8.2 |
| 105163 | | | 80 | 95 | 8.9 |
| 105164 | | | 95 | 110 | 9.7 |
| 105165 | | | 110 | 125 | 10.5 |
| 105168 | | | 3000 | 50 | 65 |
| 105169 | | 65 | | 80 | 11.8 |
| 105170 | | 80 | | 95 | 12.9 |
| 105171 | | 95 | | 110 | 14.0 |
| 105172 | | 110 | | 125 | 15.1 |

Note:

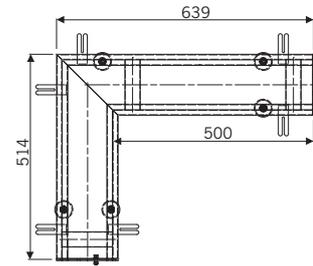
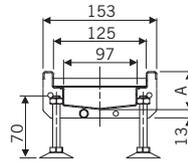
All channels are supplied complete with levelling feet, fixing ties, neoprene gaskets and fixings.

For applications requiring 316 stainless steel channel drainage please contact the ACO Building Drainage Team on **01462 816666**

or e-mail abdtechnical@aco.co.uk for further details.

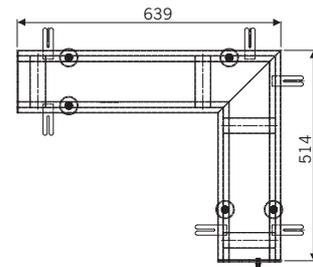
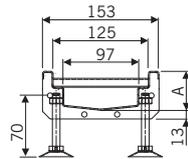
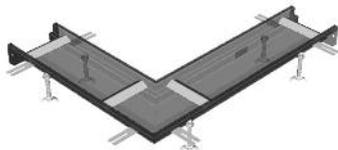
Corner and Branch Units

Corner Unit – Right Hand



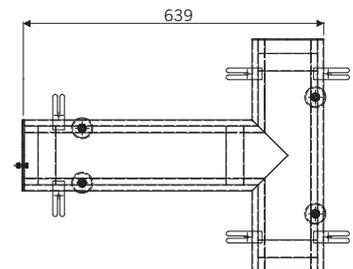
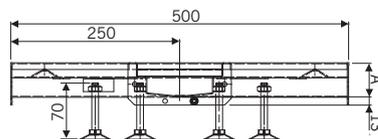
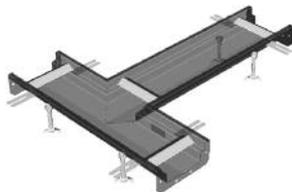
| Part No | Description | L (mm) | A (mm) | Weight (kg) |
|---------|--------------------------------|--------|--------|-------------|
| 105207 | Corner Unit Right Hand S/S 304 | 500 | 50 | 3.9 |
| 105208 | | | 65 | 4.3 |
| 105209 | | | 80 | 4.7 |
| 105210 | | | 95 | 5.1 |
| 105211 | | | 110 | 5.5 |
| 105212 | | | 125 | 5.8 |

Corner Unit – Left Hand



| Part No | Description | L (mm) | A (mm) | Weight (kg) |
|---------|-------------------------------|--------|--------|-------------|
| 105214 | Corner Unit Left Hand S/S 304 | 500 | 50 | 4.0 |
| 105215 | | | 65 | 4.3 |
| 105216 | | | 80 | 4.8 |
| 105217 | | | 95 | 5.1 |
| 105218 | | | 110 | 5.5 |
| 105219 | | | 125 | 6.3 |

Branch Unit



| Part No | Description | L (mm) | A (mm) | Weight (kg) |
|---------|---------------------|--------|--------|-------------|
| 105221 | Branch Unit S/S 304 | 500 | 50 | 3.9 |
| 105222 | | | 65 | 4.3 |
| 105223 | | | 80 | 4.7 |
| 105224 | | | 95 | 5.1 |
| 105225 | | | 110 | 5.4 |
| 105226 | | | 125 | 5.8 |

Note:

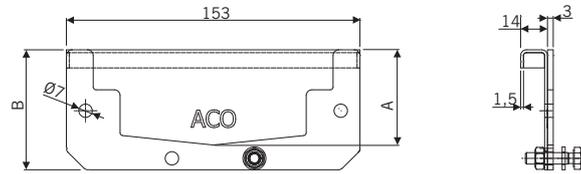
All channels are supplied complete with levelling feet, fixing ties, neoprene gaskets and fixings.

For applications requiring 316 stainless steel channel drainage please contact the ACO Building Drainage Team on **01462 816666**

or e-mail abdtechnical@aco.co.uk for further details.

End Plates and PVC Infill

End Plates

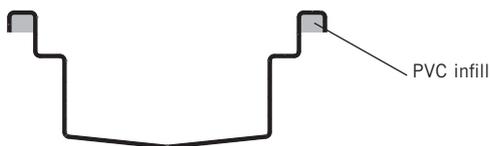


| Part No | Description | A (mm) | B (mm) | Weight (kg) |
|---------|---------------------|--------|--------|-------------|
| 105100 | End Plates S/S 304* | 50 | 63 | 0.2 |
| 105101 | | 65 | 78 | 0.2 |
| 105102 | | 80 | 93 | 0.2 |
| 105103 | | 95 | 108 | 0.24 |
| 105104 | | 110 | 123 | 0.26 |
| 105105 | | 125 | 138 | 0.29 |

*All end plates are supplied complete with neoprene gaskets and fixings.

PVC Infill

PVC Infill can be inserted into the underside of the visible edge of channels and associated component sections to provide additional strength and prevent damage to the visible edge of channels and components. PVC Infill is recommended for installations that are subject to wheeled heavy loadings from trolleys or vehicles. This must be included for applications at Load Class C250 and above.



| Part No | Description | Unit* | Weight (kg) per metre |
|---------|-------------|-------------------|-----------------------|
| 45107 | PVC Infill | Per channel metre | 0.5 |

*Double quantity required for each metre of channel (including ends).

Note:

PVC Infill supplied loose for installation on site.

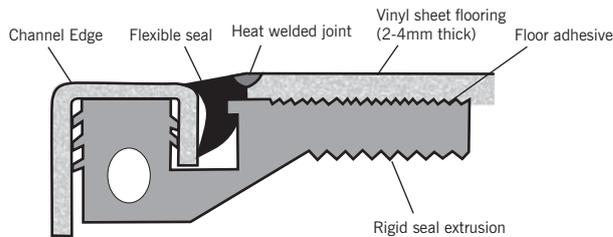
For applications requiring 316 stainless steel channel drainage please contact the ACO Building Drainage Team on **01462 816666**

or e-mail abdtechnical@aco.co.uk for further details.

ACO Vinyl Seal® and Grating Lockings and Security

ACO Vinyl Seal®

Ideal for vinyl/flexible sheet flooring applications, ACO Vinyl Seal® can be used to create a fully welded system that is watertight and improves hygiene performance by eliminating cumbersome mechanical clamping systems. ACO Vinyl Seal® is not suitable for wooden or suspended floors.



| Part No | Description | Unit* | Weight (kg) |
|---------|-----------------------------|--------------------|-------------|
| 49062 | Flexible PVC Seal | *Per channel metre | 0.01 |
| 49061 | Rigid PVC Extrusion | *Per channel metre | 0.1 |
| 49063 | 10" Sheet Plier Grip Wrench | Each | 0.5 |

*Double quantity required for each metre of channel (including ends).

Grating Lockings and Security

For applications where locked gratings are required, the Modular 125 channel system can be supplied with factory fitted standard lockings (activated by a standard hexagon wrench) or security locking (activated by a security wrench).

Note:

- Channel systems required with locking accessory require appropriate grating recess.
If locking recess is not standard then grating locking modification will be required.
- Gully gratings will be modified at the factory for locking as part of gully locking kit.
- Locking kits include channel gully modification locking bar and fixing.
- Appropriate standard or security locking wrench to be ordered separately, as per options above.

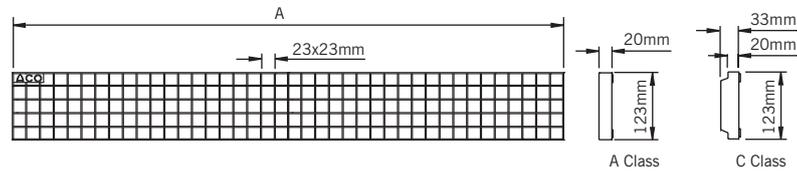
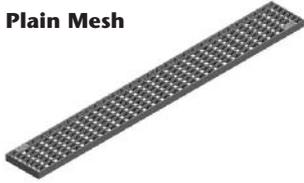
| Part No | Description | Unit |
|---------|-------------------------------------|---|
| 26310 | Standard Channel Locking Kit | Per metre channel run |
| 26320 | Security Channel Locking Kit | Per metre channel run |
| 26340 | Grating Locking Modification | Per metre (not required for gratings with locking access as standard) |
| 26360 | Standard Gully Locking Kit | Per gully top |
| 26350 | Security Gully Locking Kit | Per gully top |
| 46876 | Standard Hexagon Locking Wrench 5mm | - |
| 46786 | Security Hexagon Locking Wrench 5mm | - |

Note:

For applications requiring 316 stainless steel channel drainage please contact the ACO Building Drainage Team on **01462 816666** or e-mail abdtechnical@aco.co.uk for further details.

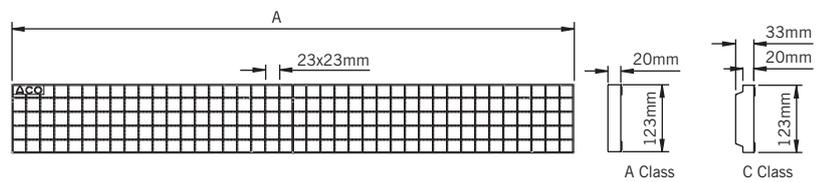
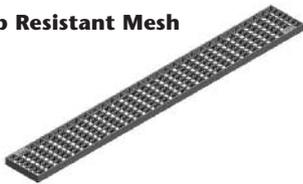
Channel Gratings

Plain Mesh



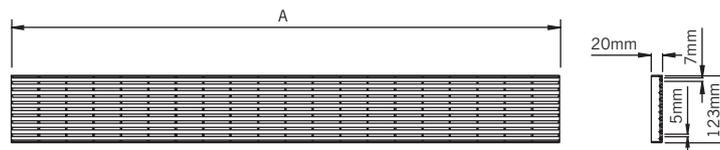
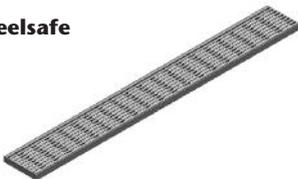
| Part No | Description | A (mm) | BS EN 1433 Load Class | Finish | Weight (kg) |
|---------|--------------------|--------|-----------------------|-----------------|-------------|
| 21620 | Plain Mesh S/S 304 | 1000 | A15 | Electropolished | 3.0 |
| 21720 | | 500 | A15 | Electropolished | 1.6 |
| 21820 | | 1000 | C250† | Electropolished | 4.2 |
| 21920 | | 500 | C250† | Electropolished | 2.2 |

Slip Resistant Mesh



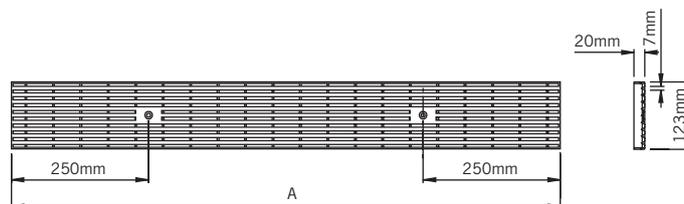
| Part No | Description | A (mm) | BS EN 1433 Load Class | Finish | Weight (kg) |
|---------|-----------------------------|--------|-----------------------|-----------------|-------------|
| 21610 | Slip Resistant Mesh S/S 304 | 1000 | A15 | Electropolished | 3.0 |
| 21710 | | 500 | A15 | Electropolished | 1.6 |
| 21810 | | 1000 | C250† | Electropolished | 4.2 |
| 21910 | | 500 | C250† | Electropolished | 2.2 |

Heelsafe



| Part No | Description | A (mm) | BS EN 1433 Load Class | Finish | Weight (kg) |
|---------|------------------|--------|-----------------------|----------|-------------|
| 96818 | Heelsafe S/S 304 | 1000 | B125 | Linished | 3.4 |
| 96819 | | 500 | B125 | Linished | 2.0 |

Heelsafe Locked*



| Part No | Description | A (mm) | BS EN 1433 Load Class | Finish | Weight (kg) |
|---------|--------------------------|--------|-----------------------|----------|-------------|
| 402071 | Heelsafe Locked S/S 304* | 1000 | B125 | Linished | 3.4 |
| 402072 | | 500 | B125 | Linished | 2.0 |

Note:

*Locking recess in grating provided as standard. Refer to page 32 for channel locking kits and appropriate wrench to complete locked grating system.

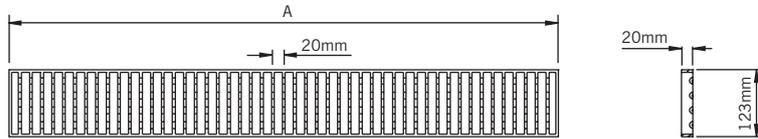
†Please refer to page 31 for PVC Infill required for applications at Load Class C250.

For applications requiring 316 stainless steel channel drainage please contact the ACO Building Drainage Team on **01462 816666**

or e-mail abdtechnical@aco.co.uk for further details.

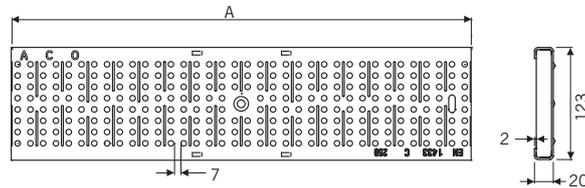
Channel Gratings

Ladder



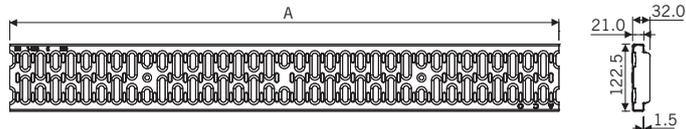
| Part No | Description | A (mm) | BS EN 1433 Load Class | Finish | Weight (kg) |
|---------|--|--------|-----------------------|---------|-------------|
| 21741 | Ladder S/S 304 (Reversible Plain or Slip Resistant) | 1000 | C250† | Pickled | 3.4 |
| 21740 | | 500 | C250† | Pickled | 2.0 |

Perforated Locked*



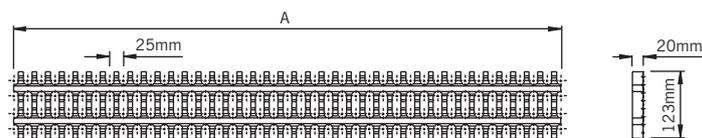
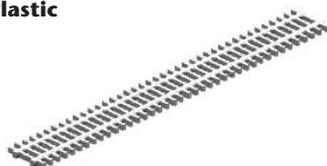
| Part No | Description | A (mm) | BS EN 1433 Load Class | Finish | Weight (kg) |
|---------|----------------------------|--------|-----------------------|---------|-------------|
| 105504 | Perforated Locked S/S 304* | 1000 | C250† | Pickled | 3.6 |
| 105505 | | 500 | C250† | Pickled | 1.8 |

Slotted Locked



| Part No | Description | A (mm) | BS EN 1433 Load Class | Finish | Weight (kg) |
|---------|-------------------------|--------|-----------------------|---------|-------------|
| 105518 | Slotted Locked S/S 304* | 1000 | A15 | Pickled | 2.0 |
| 105519 | | 500 | A15 | Pickled | 1.0 |
| 105520 | | 1000 | C250† | Pickled | 4.7 |
| 105521 | | 500 | C250† | Pickled | 2.3 |

Plastic



| Part No | Description | A (mm) | BS EN 1433 Load Class | Finish | Weight (kg) |
|---------|---------------|--------|-----------------------|--------|-------------|
| 21690 | White Plastic | 1000 | A15 | White | 1.2 |
| 21790 | | 500 | A15 | White | 0.6 |

Note:

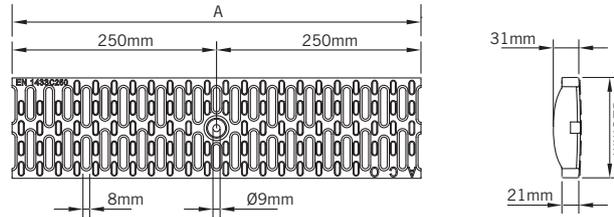
*Locking recess in grating provided as standard. Refer to page 32 for channel locking kits and appropriate wrench to complete locked grating system.

†Please refer to page 31 for PVC Infill required for applications at Load Class C250.

For applications requiring 316 stainless steel channel drainage please contact the ACO Building Drainage Team on **01462 816666** or e-mail abdtechnical@aco.co.uk for further details.

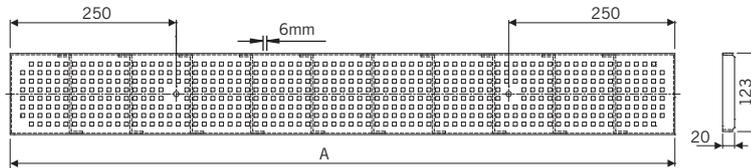
Channel Gratings

Composite



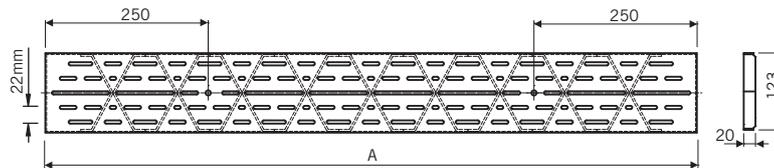
| Part No | Description | A (mm) | BS EN 1433 Load Class | Finish | Weight (kg) |
|---------|------------------|--------|-----------------------|--------|-------------|
| 15704 | Black Composite* | 500 | C250† | Black | 1.2 |
| 10735 | White Composite* | 500 | C250† | White | 1.2 |

Quadrato



| Part No | Description | A (mm) | BS EN 1433 Load Class | Finish | Weight (kg) |
|---------|---|--------|-----------------------|----------|-------------|
| 105529 | Quadrato S/S 304 | 1000 | A15 | Linished | 3.2 |
| 105530 | | 500 | A15 | Linished | 1.6 |
| 105527 | Quadrato Locked S/S 304* | 1000 | A15 | Linished | 3.2 |
| 105528 | | 500 | A15 | Linished | 1.6 |
| 105841 | Slip Resistant Quadrato S/S 304 | 1000 | A15 | Linished | 3.2 |
| 105842 | | 500 | A15 | Linished | 1.6 |
| 105843 | Slip Resistant Quadrato Locked S/S 304* | 1000 | A15 | Linished | 3.2 |
| 105844 | | 500 | A15 | Linished | 1.6 |

Intercept



| Part No | Description | A (mm) | BS EN 1433 Load Class | Finish | Weight (kg) |
|---------|--|--------|-----------------------|----------|-------------|
| 105538 | Intercept S/S 304 | 1000 | A15 | Linished | 3.6 |
| 105539 | | 500 | A15 | Linished | 1.8 |
| 105536 | Intercept Locked S/S 304* | 1000 | A15 | Linished | 3.6 |
| 105537 | | 500 | A15 | Linished | 1.8 |
| 105845 | Slip Resistant Intercept S/S 304 | 1000 | A15 | Linished | 3.6 |
| 105846 | | 500 | A15 | Linished | 1.8 |
| 105847 | Slip Resistant Intercept Locked S/S 304* | 1000 | A15 | Linished | 3.6 |
| 105848 | | 500 | A15 | Linished | 1.8 |

Note:

*Locking recess in grating provided as standard. Refer to page 32 for channel locking kits and appropriate wrench to complete locked grating system.

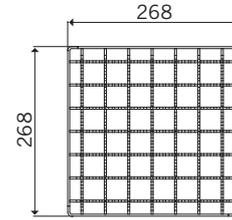
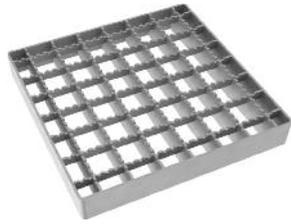
†Please refer to page 31 for PVC Infill required for applications at Load Class C250.

For applications requiring 316 stainless steel channel drainage please contact the ACO Building Drainage Team on **01462 816666**

or e-mail abdtechnical@aco.co.uk for further details.

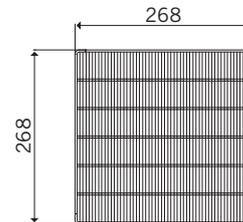
ACO Gully 218 Gratings for use with One Way and Two Way Gully Tops

Mesh



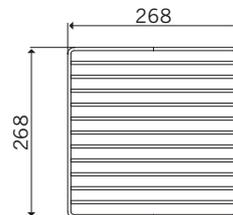
| Part No | Description | Depth (mm) | Load Class | Finish | Weight (kg) |
|---------|-----------------------------|------------|------------|-----------------|-------------|
| 408034 | Plain Mesh S/S 304 | 30 | L15 | Electropolished | 2.1 |
| 408035 | Slip Resistant Mesh S/S 304 | 30 | L15 | Electropolished | 2.1 |

Heelsafe



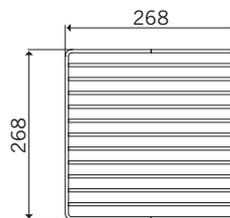
| Part No | Description | Depth (mm) | Load Class | Finish | Weight (kg) |
|---------|------------------|------------|------------|----------|-------------|
| 408040 | Heelsafe S/S 304 | 30 | L15 | Linished | 2.4 |

Ladder



| Part No | Description | Depth (mm) | Load Class | Finish | Weight (kg) |
|---------|-------------------------------|------------|------------|---------|-------------|
| 408038 | Plain Ladder S/S 304 | 30 | M125 | Pickled | 4.3 |
| 408037 | Slip Resistant Ladder S/S 304 | 30 | M125 | Pickled | 4.3 |

Ladder



| Part No | Description | Depth (mm) | Load Class | Finish | Weight (kg) |
|---------|----------------------|------------|------------|---------|-------------|
| 408045 | Plain Ladder S/S 304 | 30 | C250† | Pickled | 6.2 |

Note:

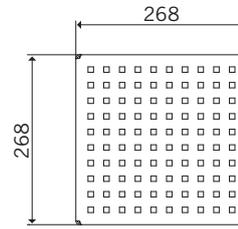
†Please refer to page 31 for PVC Infill required for applications at Load Class C250.

Refer to page 32 for channel locking kits and appropriate wrench to complete locked grating system.

ACO Gully 218 available in 316 stainless steel. Please refer to ACO Stainless Steel Gully Systems product catalogue or contact the ACO Building Drainage Team on **01462 816666** or e-mail abdtechnical@aco.co.uk for further details.

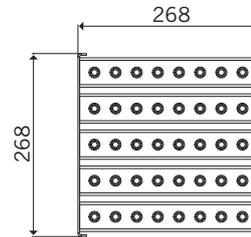
ACO Gully 218 Gratings for use with One and Two Way Gully Tops

Quadrato



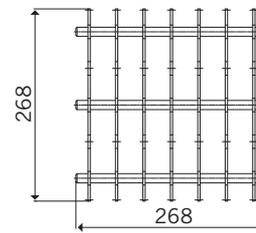
| Part No | Description | Depth (mm) | Load Class | Finish | Weight (kg) |
|---------|------------------|------------|------------|----------|-------------|
| 408036 | Quadrato S/S 304 | 30 | L15 | Linished | 1.8 |

Multi-Slot



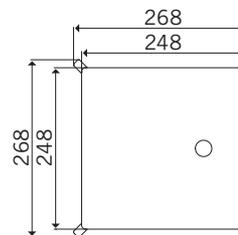
| Part No | Description | Depth (mm) | Load Class | Finish | Weight (kg) |
|---------|-----------------------------------|------------|------------|---------|-------------|
| 408042 | Slip Resistant Multi-Slot S/S 304 | 30 | L15 | Pickled | 2.0 |

Arla



| Part No | Description | Depth (mm) | Load Class | Finish | Weight (kg) |
|---------|-----------------------------|------------|------------|---------|-------------|
| 408041 | Slip Resistant Arla S/S 304 | 30 | L15 | Pickled | 1.8 |

Slot Cover



| Part No | Description | Depth (mm) | Load Class | Finish | Weight (kg) |
|---------|--------------------|------------|------------|---------|-------------|
| 408039 | Slot Cover S/S 304 | 30 | M125 | Pickled | 6.0 |

Note:

Refer to page 32 for channel locking kits and appropriate wrench to complete locked grating system.
 ACO Gully 218 available in 316 stainless steel. Please refer to ACO Stainless Steel Gully Systems product catalogue or contact the ACO Building Drainage Team on **01462 816666** or e-mail **abdtechnical@aco.co.uk** for further details.

ACO Modular 125 Channel and Gully Installation Recommendations
(details may vary depending upon application)

Step 1 Base Preparation



Prepare base with 100mm compacted Type 1 fill.

Step 4a Pour Concrete



Pour concrete slab and leave for 24 hours before removing shutters.

Step 2 Gully Positioning



Position gully bodies and measure for shuttering and oversite concrete level.

Step 4b Clear Loose Materials



Keep pipework clear of loose materials.

Step 3 Construct Shutters



Construct shutters, position and mark concrete level. Leaving the shutters long allows easy removal after concrete pour.

Step 5 Re-Position Gully



Position gully and check levels. Keep loose materials clear of gully.

ACO Modular 125 Channel and Gully Installation Recommendations (details may vary depending upon application)

Step 6 Backfill Gullies



Backfill gullies with concrete and float to flange level.

Step 7 DPM



Fit DPM and clamp in flange as appropriate.

Step 8 Channel Assembly



Loose assemble gullies, channel sections (including PVC Infill if required) and joint gaskets. **Leave spacer bars intact until channel has been completely installed.** Loose assemble gullies, channel section and joint gaskets in drainage run ensuring compatibility of adjacent channels, position and level before final tightening of all joints. For Load Class C250 applications, allow 200mm either side and under the channel for concrete backfill support, where this is not possible, seek engineering advice. For Load Class A15 and B125

applications, allow for a minimum of 30mm of bedding material and approximately 50 – 100mm either side of the channel to allow access to levelling feet, fixing ties and flange plates. Prior to bedding and haunching, check joints and traps for water tightness.

Step 8 Form Levelling Screed Shuttering

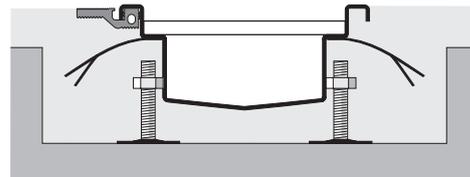


Taking into account finished floor materials and thickness (sharp sand, paviors, tiles, vinyl etc) construct shuttering for the levelling screed. Pour screed and remove shuttering.

Weigh the channels down when back filling the trench to prevent the channels from lifting or floating. Fully extend and twist channel fixing ties to provide a good anchorage. Pour suitable cement or resin mortar around the channel. The mortar should be of a type and consistency to ensure there can be a good compaction of this material both under the channel base and particularly under the channel edge.

The bed and surround must have sufficient strength to support the channel in service. For light and medium duty applications up to Load Class C250, a suitable mortar of Strength Class C30/37 to BS EN 206-1 with a maximum aggregate size of 10mm should be used.

Where it is not possible to provide the depth of surround as prescribed in Step 2, a suitable mortar of Strength Class at least C35/45 to BS EN 206-1 with a maximum aggregate size of 10mm may be used to support the channel following engineering advice.



Remove immediately from the inside surfaces of the channel (or gully) any mortar or concrete spillage.

For applications using ACO Vinyl Seal®, refer to pages 41-42 for installation details.

ACO Modular 125 Channel and Gully Installation Recommendations (details may vary depending upon application)

Step 9a Block Pavior Finish



Prepare screed base working mix under channel and gully top flange and lay block paviors on 300mm wide epoxy surround to prevent movement. Set paviors 3mm maximum above channel edge. Complete paviors on compacted sharp sand bed.

Step 9b Tile Finish



Prepare haunching on screed base working mix under channel and gully top flange. Lay levelling screed and lay tiles in cement bedding.

Step 9c Flexible Sheet Finish



Fit the ACO Vinyl Seal® rigid extrusion and flexible seal system to channel and gully edge as described on pages 41-42. Prepare haunching.

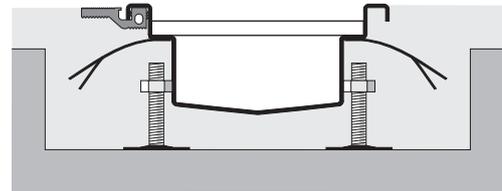
Step 10 Sealing

A mastic sealant should be applied between the edge of the channel and floor typically 8 – 10mm wide and 10 – 15mm deep.

In some cases it may be necessary to apply a suitable primer to the stainless steel before applying the mastic sealant. The sealant manufacturers' advice should be sought for each individual application.

Step 11 Grating Installation

Channel spacer bars provide rigidity during delivery, site handling and installation. They also prevent narrowing of the grating aperture during concreting.



Spacer bars should be left in position until immediately before the gratings are installed. They should be removed by striking them with a sharp horizontal blow using a mallet.

Step 12 Cleaning

Remove all protective tape from the channel edge and clean the surface with a solvent if necessary to remove any adhesive residue.

Wash and clean channel and gully, empty silt/sediment baskets and refit gratings.

Cutting and Welding on Site

It is not easy to cut and weld stainless steel on site, as special cutting equipment is needed and care must be taken to ensure that all welded surfaces are properly finished.

After cutting and welding on site it may not be possible to achieve a uniform surface appearance or guarantee full passivation of the weld.

ACO Vinyl Seal® Installation Recommendations

Sealing Vinyl Sheet Flooring to Drainage Channels and Gullies

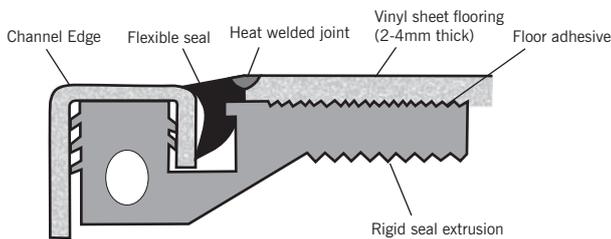
Vinyl/flexible sheet is a common flooring finish in many of the areas where stainless steel drainage channels and gullies are required.

Historically the standard method of joining vinyl/flexible sheet flooring to drainage channels and gullies was by a mechanical clamping system. Although functional, this method can be cumbersome to install and increases the potential for areas of bacterial growth.

In order to overcome the frequently encountered problems of achieving watertight and bacteria free seals, ACO Building Drainage have developed and patented the ACO Vinyl Seal®, a unique solution that enables quick, easy and cost effective installation. It also provides a completely watertight and bacteria free seal.

ACO Vinyl Seal® requires no additional tools or skills other than those required for the professional fitting of vinyl sheet flooring.

ACO Vinyl Seal® is not suitable for wooden or suspended floors. Contact the ACO Building Drainage team on 01462 816666 or email abdtechnical@aco.co.uk for assistance.



Step 1 Remove Protective Tape

Remove channel protective tape prior to fixing extrusion.

Step 2 Cut Rigid Seal Extrusion



Cut grey rigid seal extrusion to suit ensuring any mitres are cut accurately otherwise pressure points may appear in the finished floor in use.

Step 3 Clip Rigid Seal into Channel



Using Sheet Plier Grip Wrench clip the rigid seal extrusion into the underside of channel.

Step 4 Cut Notches into Rigid Seal



Where there are joint plates in the channel run cut a notch out of the rigid seal extrusion as shown to enable the extrusion to be clipped to the underside of the channel.



Picture shows the rigid extrusion cut and fitted prior to the fitting of the black flexible seal.

ACO Vinyl Seal® Installation Recommendations

Step 5 Position Black Flexible Seal



Insert the black flexible seal inbetween channel edge and rigid seal extrusion making sure that the curved concave section of the seal faces TOWARDS the channel edge and that the groove in the black flexible seal engages with the notch on the rigid seal extrusion. (It may help to lubricate the flexible seal when inserting using a water soluble soapy solution).



Picture shows the rigid seal extrusion and black flexible seal fitted prior to screeding / back filling.

Step 6 Insert Black Flexible Seal



Using the Sheet Plier Grip Wrench, proceed along the channel edge inserting the black flexible seal.

Step 8 Install Channel

Install the channel into the ground ensuring the flooring screed is flush to the top edge of the rigid seal extrusion. Protect the channel and seal assembly from splashes of concrete or screed.

Step 9 Grouting

Grout any voids at connecting PVC joints and mitred corners to ensure a continuous fully supported surface.

Step 10 Prepare Rigid Seal Edge

Prior to laying the vinyl/flexible sheet flooring, peel the protective film from the rigid seal extrusion (a knife may be required to cut the film adjacent to the flexible seal) and ensure all surfaces are clean and dry.

Step 11 Prepare Vinyl/Flexible Sheet

When preparing the vinyl/flexible sheet material and floor surface, apply a compatible adhesive* to the top surface of the rigid seal extrusion taking care not to apply adhesive to the flexible seal. This is to ensure the vinyl sheet floor is reliably anchored over its full area.

*Altrofix 19 two part water resistant eurothane adhesive.

Step 12 Welding

Lay the sheet flooring against the flexible seal edge and prepare the welded joint between the flexible seal and vinyl/flexible sheet flooring as normal by scoring the sheet/seal joint to approximately half the depth of the sheet flooring thickness.

Either in-colour or black welding filler rod may be used to weld the joint. Remove surplus weld material from the joint using a spatula when the welded joint has cooled.

Step 7 Corner Detail



When fitting around a corner, the black flexible seal should be kept in one piece to minimise joints.

Care and Maintenance of ACO Modular 125

Care During Installation

Surface contamination and the formation of deposits must be prevented during installation in order to maintain a durable and hygienic surface. These deposits may be minute particles of iron or rust from other sources used in the building environment. Wire brushes and wire wool **must not** be used to remove marks and cement spillages as this will introduce iron impurities to the material surface. Care must also be taken when storing, erecting or cutting carbon steel near to stainless steel.

Factors Affecting Maintenance

Cleaning before handing over to the client should present no special problems if care during installation has been taken, although more attention may be required if the installation period has been prolonged.

Where surface contamination is suspected, immediate attention to cleaning after site fixing will encourage a trouble free product.

Although robust, all grades of stainless steel will stain and discolour due to surface deposits and therefore can never be accepted as completely maintenance free. In order to

achieve maximum corrosion resistance, the surface of the stainless steel must be kept clean. Provided the grade of stainless steel and the surface finish are correctly selected, and cleaning schedules carried out on a regular basis, excellent performance and long service life are assured.

Industrial and even naturally occurring atmospheric conditions can produce deposits which can be corrosive, e.g.: salt deposits from marine conditions.

High humidity environments (e.g. swimming pools) increase the speed of discolouration and therefore require maintenance on a more frequent basis.

Modern processes use many cleaners, sterilisers and bleaches for hygienic purposes which when used in accordance with manufacturers instructions are safe, but if used incorrectly (e.g.warm or concentrated) can cause discolouration and corrosion on the surface of all stainless steel.

Strong acid solutions used to clean masonry and tiling of buildings should never be permitted to come into contact with stainless steel. If this should happen the acid solution must be removed immediately by copious application of water.

Maintenance Programme

Advice is often sought concerning the frequency of cleaning stainless steel and the answer is quite simple: clean the metal when it is dirty in order to restore its original appearance. This may vary from once to four times a year for external applications or it may be once a day for an item in hygienic or aggressive situations (food, beverage, pharmaceutical and chemical applications).

Frequency and cost of cleaning is lower with stainless steel than with many other materials, and will often outweigh the initial higher cost of this superior product.

Cleaning Methods

ACO Modular 125 system components are easy to clean. Washing with soap or a mild detergent and warm water followed by a clear water rinse is usually adequate. An enhanced aesthetic appearance will be achieved if the cleaned surface is wiped dry.

Precautions

Acid cleaners should be used for cleaning **only** when other methods have proved unsatisfactory. Manufacturers directions should be followed.

| Problem | Cleaning Agent | Recommendation |
|------------------------------------|--|--|
| Routine cleaning | Soap or mild detergent and water (e.g.: washing up liquid) | Sponge, rinse with clean water, wipe dry if necessary |
| Fingerprints | Soap and 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.: Cif, Goddard Stainless Steel Care) | Clean after with soap and water, rinse with clean water and dry, if necessary |
| Oil and grease marks | Organic solvents (e.g.: acetone, alcohol) | After solvent use clean with soap and water, rinse with clean water and dry, if necessary |
| Rust and corrosion | Most mild corrosion and staining effects can be removed by the application of commercially available metal polishes. Check manufacturer's details before use | Rinse well with copious amounts of clean water (precautions for acid cleaners should be observed) |
| Scratches on brushed finishes | Household synthetic fibre scouring pads (e.g.: Scotch Brite fibre pad) | Apply in direction of brushed finish. Clean with soap or detergent as per routine cleaning. Never use ordinary steel wool as iron particles can become embedded in the surface being cleaned and cause corrosion |

Always read instructions on propriety cleaning agents!

Stainless Steel Explained

Stainless steel is the name given to a wide range of steels which have the characteristics of greatly enhanced corrosion resistance over conventional mild and low alloy steels.

The enhanced corrosion resistance of stainless steel essentially comes from the addition of at least 11% chromium, however most stainless steels commonly used contain around 18% chromium. Other significant alloying elements include nickel and for superior corrosion resistant properties, molybdenum.

For ACO Building Drainage applications, the principal properties of stainless steel may be summarised as follows:

- Durable and corrosion resistant in highly aggressive environments.
- Hygienic, easily cleaned surfaces.
- Aesthetically attractive surface finish.
- Good forming and fabrication characteristics.
- Excellent strength and resistance to oxidation at high temperatures.

All these make stainless steel an obvious first choice material for demanding applications.

Stainless Steel Families

Stainless steel is used across a wide spectrum of engineering applications and this has led to the development of the vast range of different types of stainless steels that are now available.

Austenitic Stainless Steel is the most widely used and encompasses the generic 304 and 316 grades of material. These materials are used in the ACO Building Drainage manufacturing process and are ideal for applications including food processing, leisure, dairy, brewing, pharmaceutical, chemical and petrochemical industries.

304 grade stainless steels contain around 18% chromium and 10% nickel and provides excellent corrosion resistance. For applications where superior corrosion resistance properties are required under extreme conditions particularly where chlorides are involved, 316 grade stainless steels are used and contain around 17%



chromium, 12% nickel and 2.2% molybdenum.

Unlike all other grades of stainless steels, austenitic grades are non-magnetic and as a consequence magnetic particles are not attracted to the system surfaces which otherwise would encourage both contamination and corrosion.

Ferritic, Martensitic and duplex stainless steels are unsuitable for drainage products.

Stainless Steel Corrosion Resistance

The single most important property of stainless steels and the reason for their existence and widespread use, is their natural corrosion resistance. In spite of their name, stainless steels can both 'stain' and corrode if used incorrectly.

The reason for the good corrosion properties is due to the formation of a very thin, invisible oxide film that forms on the surface of the material in oxidising environments such as the atmosphere and water.

This film is a chromium-rich oxide which protects the steel from attack in aggressive environments. As chromium is added to a steel, a rapid reduction in the corrosion rate is observed because of this protective film. In order to obtain a compact and continuous passive film, a chromium content of at least 11% is required. Passivity increases fairly rapidly with increasing chromium content up

to about 17% chromium.

The most important alloying element is therefore chromium, but a number of other elements including nickel, molybdenum and nitrogen also contribute to the corrosion resistance properties of stainless steels. Other alloying elements may also be added to enhance the corrosion resistance in particular environments.

Stainless steels must oxidise in order to form the passive, chromium-rich oxide film. Stainless steels have a very strong tendency to passivate and only a small amount of oxidising agents are needed for passivation - air and water are sufficient to passivate stainless steels and indeed, this oxide film is spontaneously regenerated when exposed to oxygen. An important factor to note is that the passive film is self-healing, so when the material is cut or machined or, should chemical or mechanical damage occur, the passive film will 'heal' or re-passivate in oxidising environments - unlike a painted finish on mild steel.

Selection of the correct grade of material for each application is an important factor in the design process. It is important to note that even 316 grades of stainless steel are not immune to all kinds of chemical attack; use of reducing solutions such as hydrochloric and sulphuric acids particularly when in concentrated and/or hot form, requires careful consideration. See corrosion resistance chart on pages 46 and 47.

Stainless Steel Finishing Processes

A stainless steel finish should appear clean, smooth and faultless. This is obvious when the steel is used for such purposes demanding stringent hygiene or decorative trim applications, but a fine surface finish is also crucial in respect to its corrosion resistant properties.

The corrosion resistance properties of stainless steel are achieved by the spontaneous formation of a very thin chromium-rich oxide layer over the surface of the material. Unfortunately, surface defects and imperfections introduced during the manufacturing process may drastically disturb the self healing process of the passive layer and subsequently reduce the corrosion resistance of the material.

In the manufacturing process it is welding that creates the greatest challenge to corrosion resistance.

Untreated Stainless Steel



After welding stainless steel, a bluish high temperature oxide film can be seen which has substantially inferior corrosion protection properties compared to the original passive layer. Immediately beneath this blue oxide film is a thin layer of chromium depleted metal which makes the metal surface susceptible to corrosion. Post weld treatment is, therefore, very important to restore the corrosion protection properties and is effectively achieved by removing the blue high temperature oxide film and chromium depleted layer to restore the surface of the material. This 'cleaning' is essentially a controlled corrosion process using chemicals, this will restore not only its original corrosion resistance performance but also the high quality aesthetics.

The single most important property of stainless steels and the reason for their existence and widespread use, is their natural

corrosion resistance. In spite of their name, stainless steels can both 'stain' and corrode if used incorrectly.

The reason for the good corrosion properties is due to the formation of a very thin, invisible oxide film that forms on the surface of the material in oxidising environments such as the atmosphere and water.

ACO Pickle Passivation Plant



All ACO Building Drainage products are subjected to specialised treatment to ensure the material retains the maximum resistance to corrosion.

The chemical processing methods used in the ACO Building Drainage process are pickle passivation and electropolishing. ACO resources include the largest pickle passivation plant in Europe.

Pickle Passivation

The standard ACO Building Drainage manufacturing process uses the pickle passivation chemical finishing process to restore the products to their full optimum corrosion resistant state without damaging the surface finish. This is considered the best method for cleaning welded joints.



Pickle Passivation is a two-phase process. Pickling removes both the bluish high temperature oxide film and the chromium depleted layer and is achieved by placing the components in a pickling bath containing a

mixture of nitric acid and hydrofluoric acid.

The second phase is passivation and in many ways is similar to the pickling process. During this process the components are placed in a bath containing only nitric acid. This treatment strengthens the passive layer and also removes any iron impurities that may have become embedded in the surface of the stainless steel during the manufacturing process.

This treatment is important where mechanical cleaning of the components has taken place with the use of wire brushes, grinding wheels and files where iron particles from other materials may contaminate the stainless steel surface.

Electropolishing



Electropolishing is ideal for producing a uniform, highly reflective lustre with an extremely smooth finish even on the most complex product contours. This is a well proven method of polishing and is achieved by an electro-chemical process which is essentially the reverse of electroplating.

The components are immersed in a bath of electrolyte containing phosphoric acid where the components become the anode of a direct current electrical circuit. The process is characterised by the selective attack on the surface of the components whereby upstanding roughnesses are preferentially dissolved and will yield a progressively smoother, brighter surface.

For pharmaceutical and food processing industries, bacterial resistance is considerably improved by the electropolishing process.

Certain gratings within the ACO Building Drainage range are electropolished as standard. All stainless steel products can be electropolished if required to special order.

Corrosion Resistance Chart

| Reagent | Stainless Steel 304 | Stainless Steel 316 | EPDM | Neoprene Gasket | Viton Gasket |
|---------------------------|---------------------|---------------------|------|-----------------|--------------|
| Acetic Acid 20% | ● | ● | ● | ? | ● |
| Acetic Acid 80% | ● | ● | ● | X | ● |
| Acetone | ● | ● | ● | ● | X |
| Alcohol (Methyl or Ethyl) | ● | ● | ● | ● | ? |
| Aluminium Chloride | ? | ? | ● | ● | ● |
| Aluminium Sulphate | ● | ● | ● | ● | ● |
| Ammonia Gas (Dry) | ● | ● | ~ | ● | ~ |
| Ammonium Chloride | ? | ? | ● | ● | ● |
| Ammonium Hydroxide | ● | ● | ● | ● | ● |
| Ammonium Nitrate | ● | ● | ● | ● | ● |
| Ammonium Phosphate | ● | ● | ● | ● | ● |
| Ammonium Sulphate | ? | ● | ● | ● | ● |
| Ammonium Sulphide | ● | ● | ~ | ~ | ~ |
| Amyl Chloride | ● | ● | X | ~ | ? |
| Aniline | ● | ● | ? | X | ● |
| Barium Chloride | ● | ● | ● | ● | ● |
| Barium Hydroxide 10% | ~ | ~ | ● | ● | ● |
| Barium Sulphate | ● | ● | ● | ● | ● |
| Barium Sulphide | ~ | ~ | ● | ● | ● |
| Beer | ● | ● | ● | ● | ● |
| Beet Sugar Liquors | ● | ● | ● | ● | ● |
| Benzene | ● | ● | X | X | ● |
| Benzoic Acid | ● | ● | X | ● | ● |
| Bleach -12.5%Active C1 | ~ | ~ | ● | X | X |
| Boric Acid | ● | ● | ● | ● | ● |
| Bromic Acid | ? | ? | ~ | ~ | ~ |
| Bromine Water | X | X | ~ | X | ~ |
| Butane | ● | ● | X | ● | ● |
| Calcium Carbonate | ● | ● | ● | ● | ● |
| Calcium Chloride | X | ? | ● | ● | ● |
| Calcium Hydroxide | ? | ● | ● | ● | ● |
| Calcium Hypochlorite | X | ? | ? | X | ● |
| Calcium Sulphate | ● | ● | ● | ~ | ● |
| Cane Sugar Liquors | ~ | ~ | ● | ● | ● |
| Carbon Acid | ~ | ~ | ● | ● | ● |
| Carbon Bisulphide | ● | ● | X | X | ● |
| Carbon Dioxide | ● | ● | ● | ● | ● |
| Carbon Monoxide | ● | ● | ● | ● | ● |

| Reagent | Stainless Steel 304 | Stainless Steel 316 | EPDM | Neoprene Gasket | Viton Gasket |
|-----------------------|---------------------|---------------------|------|-----------------|--------------|
| Carbon Tetrachloride | ? | ? | X | X | ● |
| Caustic Potash | ● | ● | ● | ~ | ● |
| Caustic Soda | ● | ● | ● | ● | ● |
| Chloride (Dry) | ? | ? | ● | X | ● |
| Chloride (Wet) | X | X | X | X | ? |
| Chloroacetic Acid | ~ | ● | ? | X | ● |
| Chlorobenzene | ● | ● | X | X | ● |
| Chloroform | ? | ? | X | X | ● |
| Chrome Acid 50% | X | X | ? | X | ● |
| Chromic Acid 10% | ● | ● | X | X | ● |
| Citric Acid | ? | ● | ● | ● | ● |
| Copper Chloride | X | X | ● | ● | ● |
| Copper Cyanide | ● | ● | ● | ● | ● |
| Copper Nitrate | ● | ● | ~ | ● | ● |
| Copper Sulphate | ● | ● | ● | ● | ● |
| Cottonseed Oil | ~ | ~ | X | ● | ● |
| Cresol | ~ | ~ | X | X | X |
| Cyclohexanone | ? | ● | ● | X | X |
| Cyclohexanol | ~ | ~ | X | ● | X |
| Dimethyleaniline | ~ | ~ | ? | ● | ● |
| Dionylphalate | ~ | ~ | ? | X | X |
| Disodium Phosphate | ~ | ~ | ● | X | ● |
| Distilled Water | ● | ● | ● | ● | ● |
| Ethyl Acetate | ● | ● | ? | X | X |
| Ethylene Chloride | ● | ● | X | X | ? |
| Ethylene Glycol | ● | ● | ● | ● | ● |
| Fatty acids (Cb) | ● | ● | X | ? | ● |
| Ferric Sulphate | ● | ● | ● | ● | ● |
| Fluorene Gas (wet) | X | X | ● | X | ? |
| Formaldehyde (37%) | ● | ● | ● | ● | ● |
| Formic Acid (90%) | X | ● | ● | ● | ? |
| Freon 12 | ● | ● | ● | ● | ● |
| Fruit Juices and Pulp | ? | ● | ~ | ● | ● |
| Furfural | ● | ● | X | X | X |
| Gasoline (Refined) | ● | ● | X | ● | ● |
| Glucose | ● | ● | ● | ● | ● |
| Glycerine | ● | ● | ● | ● | ● |

The corrosion resistance information contained within this table is indicative only.

All data is based on reactions noted at an ambient temperature of 20°C. Higher temperatures will generally reduce the corrosion resistance of the materials.

Please contact ACO Building Drainage if

guarantees are required of specific material suitability.

We shall arrange for tests to be undertaken with the reagent to establish the chemical resistance of the materials. Other gasket and sealing ring materials are available. Please contact us for further information.

- Recommended
- ? Suitable. However, contact ACO Building Drainage for further advice.
- X Not recommended
- ~ No data available

Corrosion Resistance Chart

| Reagent | Stainless Steel 304 | Stainless Steel 316 | EPDM | Neoprene Gasket | Viton Gasket |
|-------------------------|---------------------|---------------------|------|-----------------|--------------|
| Hydrobromic Acid (20%) | X | X | ● | X | ● |
| Hydrochloric Acid (40%) | X | X | X | ● | ● |
| Hydrocyanic Acid | ● | ● | ? | ● | ● |
| Hydrogen Peroxide (90%) | ● | ● | X | X | ● |
| Hydroquinone | ~ | ~ | X | ● | ● |
| Hypochlorous Acid | ~ | ~ | X | X | ● |
| Iodine | X | ? | ? | X | ● |
| Kerosene | ● | ● | X | ● | ● |
| Lactic Acid 25% | ● | ● | ● | ● | ● |
| Linseed Oil | ● | ● | X | ● | ● |
| Liqueurs | ~ | ~ | ? | X | ● |
| Magnesium Chloride | ? | ? | ● | ● | ● |
| Magnesium Sulphate | ● | ● | ● | ● | ● |
| Maleic Acid | ? | ? | X | X | ● |
| Methyl Chloride | ? | ? | X | X | ● |
| Methyl Ethyl Ketone | ~ | ~ | ● | X | X |
| Milk | ● | ● | ● | ● | ● |
| Minerals Oils | ~ | ~ | X | ● | ● |
| Muriatic Acid | X | X | ? | ● | ● |
| Nickel Chloride | ? | ? | ● | ● | ● |
| Nickel Sulphate | ● | ● | ● | ● | ● |
| Oils and Fats | ● | ● | ? | ? | ● |
| Oleic Acid | ● | ● | ● | ? | ● |
| Oleum | ~ | ~ | X | X | ● |
| Oxalic Acid | ? | ? | ● | X | ● |
| Palmitic Acid 10% | ~ | ~ | ● | X | ● |
| Perchloric Acid 10% | X | X | ? | ● | ● |
| Perchloric Acid 70% | X | X | ? | X | ● |
| Petroleum Oils (Sour) | ● | ● | X | ● | ● |
| Phenol 5% | ● | ● | ? | X | ● |
| Phosphorous Trichloride | ● | ● | ● | X | ● |
| Photographic Solutions | ? | ? | ● | ● | ● |
| Picric Acid | ● | ● | ● | ● | ● |
| Plating Solutions | ~ | ~ | ~ | X | ● |
| Potassium Carbonate | ● | ● | ● | ● | ● |
| Potassium Chloride | ● | ● | ● | ● | ● |
| Potassium Cyanide | ● | ● | ● | ● | ● |
| Potassium Dichromate | ● | ● | ● | ● | ● |
| Potassium Hydroxide | ● | ● | ● | ● | ● |
| Potassium Permanganate | ● | ● | ● | ● | ● |
| Potassium Sulphate | ● | ● | ● | ● | ● |
| Propane Gas | ~ | ~ | ~ | ? | ● |
| Propyl Alcohol | ~ | ~ | ● | ● | ● |

| Reagent | Stainless Steel 304 | Stainless Steel 316 | EPDM | Neoprene Gasket | Viton Gasket |
|-----------------------|---------------------|---------------------|------|-----------------|--------------|
| Sea Water | X | ? | ● | ● | ● |
| Sewage | ? | ? | ● | ● | ● |
| Silver Nitrate | ● | ● | ● | ● | ● |
| Silver Sulphate | ● | ● | ● | ● | X |
| Sodium Bicarbonate | ● | ● | ● | ● | ● |
| Sodium Bisulphite | ● | ● | ● | ● | X |
| Sodium Carbonate | ● | ● | ● | ● | ● |
| Sodium Cyanide | ● | ● | ● | ● | ● |
| Sodium Ferrocyanide | ~ | ~ | ? | ● | ● |
| Sodium Hydroxide | ● | ● | ● | ● | ● |
| Sodium Hypochlorite | ? | ● | ? | ● | ● |
| Sodium Sulphate | ● | ● | ● | ● | ● |
| Sodium Sulphide | ? | ● | ● | ● | ● |
| Sodium Sulphite | ? | ● | ● | ● | ● |
| Sodium Thiosulphate | ● | ● | ● | ● | ● |
| Stannous Chloride | ? | ? | X | ● | ● |
| Stearic Acid | ● | ● | ? | ● | ● |
| Sulphite Liquor | ~ | ~ | ? | ● | ● |
| Sulphurous Acid | ? | ? | ? | X | ● |
| Sulphur | ? | ● | ~ | ● | ● |
| Sulphur Dioxide (Dry) | ? | ● | ● | X | ● |
| Sulphur Dioxide (Wet) | ? | ● | ● | ● | ● |
| Sulphuric Acid 50% | X | X | ? | ● | ● |
| Sulphuric Acid 70% | X | X | ? | ● | ● |
| Sulphuric Acid 93% | X | X | ? | X | ● |
| Tannic Acid | ● | ● | ● | ● | ● |
| Tanning Liquors | ● | ● | ● | ● | ● |
| Tartaric Acid | ~ | ~ | ? | ● | ● |
| Toluene | ~ | ~ | X | X | X |
| Trichloroethylene | ● | ● | X | X | X |
| Triethanolamine | ~ | ~ | ● | ● | X |
| Trisodium Phosphate | ~ | ~ | ● | ● | ● |
| Turpentine | ● | ● | X | X | ● |
| Urea | ● | ● | ● | ● | ● |
| Urine | ● | ● | ● | ● | ● |
| Vinegar | ● | ● | ● | ● | ● |
| Water (Fresh) | ● | ● | ● | ● | ● |
| Water (Mine) | ● | ● | ● | ● | ● |
| Water (Salt) | ? | ? | ● | ● | ● |
| Whisky | ● | ● | ● | ● | ● |
| Wines | ● | ● | ● | ● | ● |
| Xylene | ~ | ~ | X | X | X |
| Zinc Chloride | X | X | ● | ● | ● |
| Zinc Sulphate | ? | ● | ● | ● | ● |

System Characteristics

ACO Building Drainage – Modular 125 Linear Drainage System

A range of austenitic stainless steel linear drainage channels and accessories with level and sloping invert channels, gratings and accessories.

Suitable for linear drainage in changing rooms, leisure, showers, wet rooms, kitchens, food and beverage processing, hospitals and healthcare, abattoirs, chemical plant and washdown areas.

| | |
|----------------------|--|
| Manufacturer: | ACO Building Drainage, ACO Business Centre, Caxton Road, Bedford, Bedfordshire MK41 0LF Tel: 01462 816666, Fax: 01462 851490. Email: abdtechnical@aco.co.uk |
| Material: | 304 grade austenitic stainless steel to BS EN 10088 pickle passivated. |
| Product: | ACO Modular 125 linear drainage system to BS EN 1433 Load Class A15 to C250. |
| Literature: | Contact ACO Building Drainage department for details. |
| Link to web: | http://www.acobuildingdrainage.com/modular.php |
| Design: | ACO Building Drainage Technical Services provide design and specification. |

Model Specification Clause

For relevant NBS Specification, refer to NBS section for floor channel systems relating to Clause 310 Floor Channels in R11 - Above ground foul drainage channels.

Note: A specification in NBS format is available to download from www.thenbs.com or www.acobuildingdrainage.co.uk

EU Conformity

The ACO Modular 125 system is fully certified to BS EN 1433:2002 and CE marked in accordance with the Construction Products Regulation.

Declarations of Performance are available via our website www.acobd.co.uk or on request, please contact ACO Building Drainage Design Services Team on 01462 816666 for further information.



Associated ACO Building Drainage Product Ranges

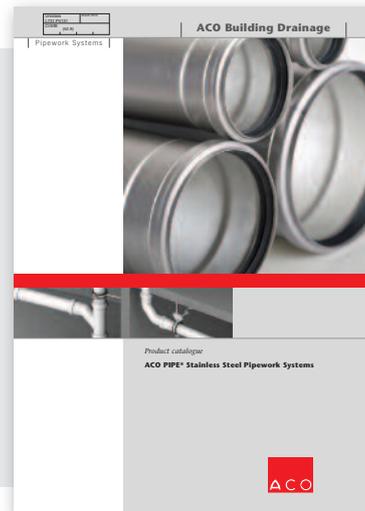
ACO Stainless Steel Gully Systems

ACO Stainless Steel Gullies are manufactured as standard in both stainless steel grade 304 and 316, and are pickle passivated for optimum durability and corrosion resistance. All ACO gullies are designed for optimum hygiene performance and meet the stringent demands of modern hygienic installations. Available in various ranges to suit any application, each range offers a selection of products to meet all industrial and commercial drainage requirements. ACO stainless steel gullies can be used in either a standalone single point gully application or, with other ACO products, such as ACO Modular 125, ACO PIPE® and ACO Bespoke channel drainage, to provide a complete drainage solution.



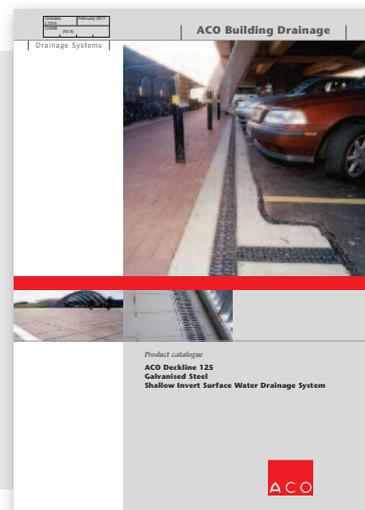
ACO PIPE®

ACO PIPE® is manufactured from thin-wall austenitic stainless steel in grades 304 and 316 and is pickle passivated for optimum durability and corrosion resistance. ACO Pipe® is available in a wide range of socketed waste pipework products and accessories for above and below ground rainwater and industrial wastewater drainage applications. Used together with other ACO products it creates a perfect system and one stop sustainable drainage solution with unique advantages to the customer – lightweight, easy installation, low thermal expansion co-efficient, sustainable material, hygienic, near zero maintenance. When used with ACO stainless steel gullies and channel systems it provides a unique system for building drainage.

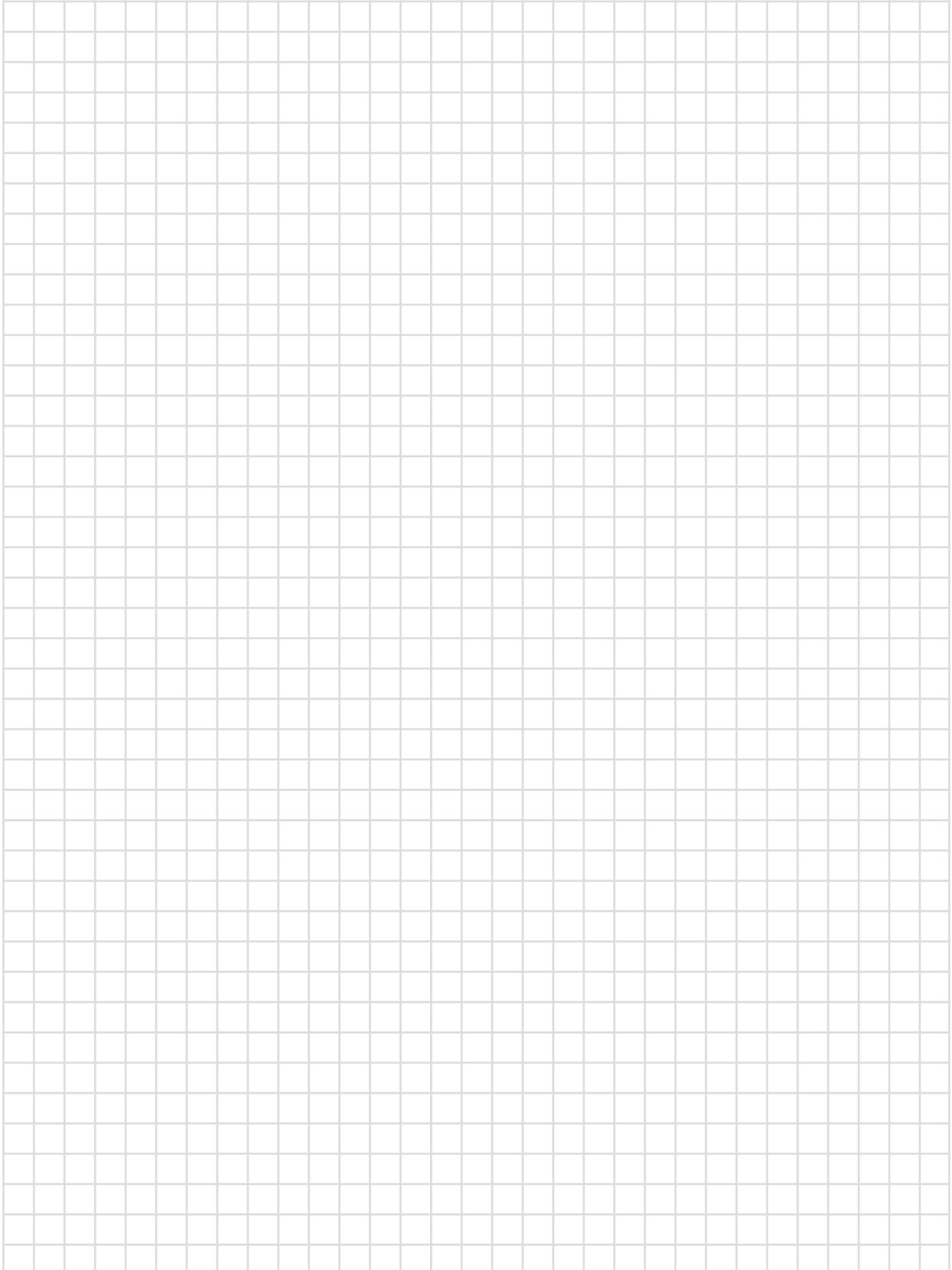


ACO DeckLine 125

ACO DeckLine 125 is a shallow invert hot-dipped galvanised steel linear drainage system for applications up to and including Load Class C 250. It is ideally suited for parking decks and areas such as structural slabs or where excavation depth is limited. Available off the shelf ACO DeckLine is durable, 100% watertight and easy to install. ACO DeckLine 125 is tested and certified to BS EN 1433.



Notes

A large, empty grid of 20 columns and 30 rows, intended for taking notes. The grid lines are thin and light gray.

ACO Technologies plc

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



ACO Building Drainage

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