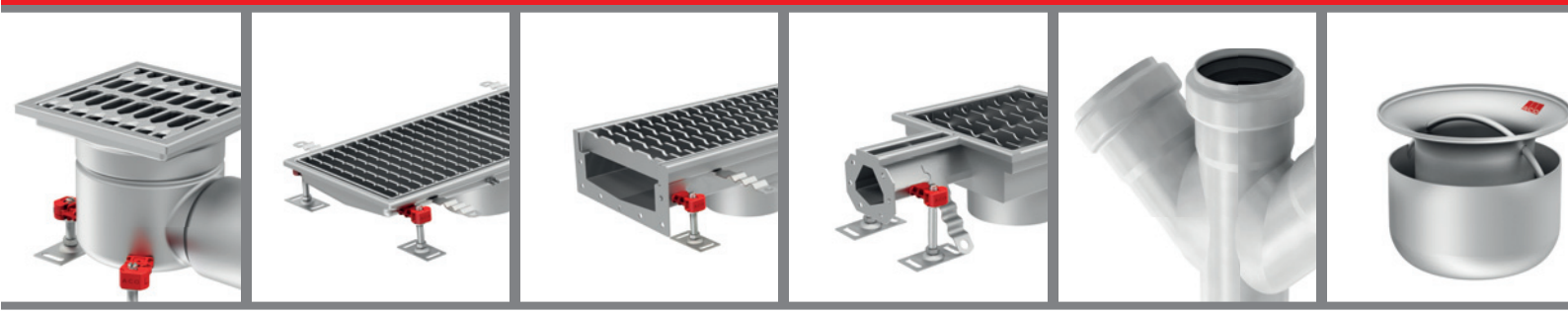


ACO product catalogue

ACO Industrial Drainage

ACO. The future of drainage.

The ACO system chain provides drainage solutions which meet the future needs of industries where hygiene is essential.

In a food service environment, hot water, grease and organic waste must be counteracted by more complex and sophisticated drainage concepts. ACO achieves this with intelligent system solutions which optimise food safety, the health and safety of employees and the protection of water. Every ACO product within the ACO system chain therefore safely controls water as it passes along the chain to ensure that it can be hygienically, economically and ecologically handled in a viable way.

collect:
Collect and remove

clean:
Pre-clean and process

hold:
Protect and attenuate

release:
Pump, discharge and reuse

ACO system chain in action

CONTENT

General introduction

ACO is one of the World's leading drainage specialists with 60 years' experience gained across a wide range of sectors. Our passion for producing high performance products has led us to make major investments in research and development.

We are working in partnership with commercial facility owners, managers and operators. We are continuously developing our products and enhancing our expertise. We understand the critical role that drainage plays in a successful business.

Our product portfolio includes items which are fully compliant with the highest hygienic requirements. We also have a full understanding of the food industry's own standards such as HACCP and we work with bodies including the European Hygienic Engineering and Design Group (EHEDG).

ACO drainage is used in applications anywhere where hygienic, corrosion resistant and durable drainage performance is essential:

- Professional kitchens
- Food processing facilities
- Brewing, bottling and canning plants
- Chilled warehouses
- Laboratories
- Chemical and pharmaceutical industries
- Restaurants
- Schools
- Hospitals
- Hotels
- and others

HygieneFirst

As one of the World's leading commercial drainage specialists, ACO Group understands the critical role that drainage plays in a successful commercial food preparation business. We appreciate that food safety, hygiene and cost control are all vital factors yet we also understand that for many, drainage is out of sight and therefore out of mind.

As a result, many drainage systems are not designed well. At best this leads to costly on going cleaning and maintenance, and at worst it can result in food contamination, closure of a facility and the loss – or even closure – of business. As the company that's driving the future of drainage, we are determined to change this by raising the profile of hygienic drainage and improving standards across every part of the process.

Our HygieneFirst philosophy represents our commitment to delivering products that provide ultimate hygienic performance. We design intelligent drainage solutions that minimize operational costs without compromising food safety.

Hygienic design requirements

ACO offers sustainable, integrated drainage systems which are designed to protect business, the environment and ultimately public health. Our aim is to improve constantly every aspect of safety, hygiene and functional performance.
We believe that our systems and services are truly unique, delivering unparalleled benefits to everyone involved in project delivery or subsequent operation.

ACO hygienic drainage fulfils stringent hygienic requirements to prevent harmful bacteria contamination. We apply relevant hygienic design principles that are reserved for food contact surfaces EN 1672, EN ISO 14159 and EHEDG documents No. 8, 13 and 44 to the design of our drainage products.

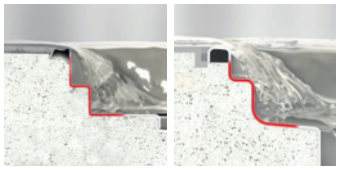
Hygienic design
Full drainability The outlet is in lowest position. Sleek slope functionality provides a fully drainable solution.
Round internal corners Minimum radius of internal corners is 3mm.
Hygienic joints Butt welds are fully welded. Metal-to-metal contact at non-disassembled joints is avoided. Sealed joints are designed to prevent accumulation of soil and bacteria.
Edge infill The channel frame edge is filled with a waterproof material.

Material
Stainless steel grade min. 1.4301 according to EN 10088 (304 according to AISI).
Fully pickled and passivated or electropolished.

Hygienic design principles

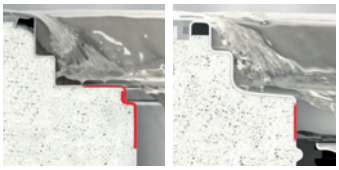
Hygienic design

All internal radii equal or larger than 3 mm which greatly increases cleaning effectiveness

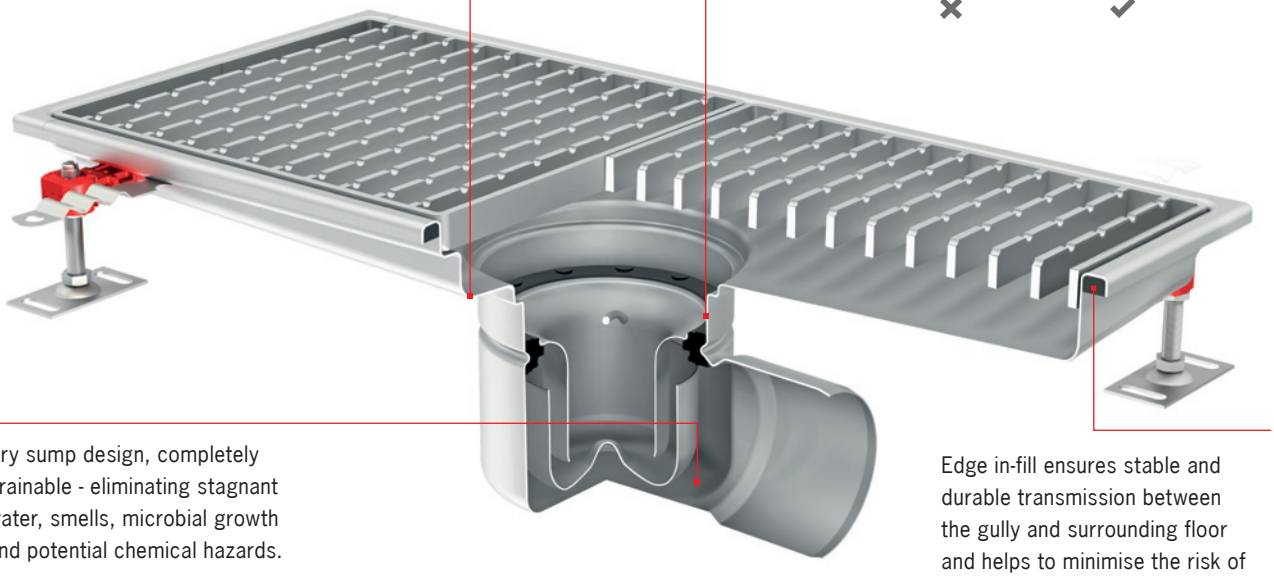


✖ ✔

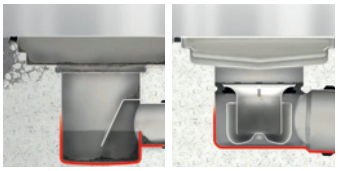
Hygienic joints: deep-drawn body ensures smooth contours eliminating crevices that can harbour dangerous bacteria



✖ ✔



Dry sump design, completely drainable - eliminating stagnant water, smells, microbial growth and potential chemical hazards.



✖ ✔

Edge in-fill ensures stable and durable transmission between the gully and surrounding floor and helps to minimise the risk of floor cracks which could harbour microorganism

✖ ✔

Material

Stainless steel

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% of chromium, however most stainless steels commonly used contain around 18% of chromium. Other significant alloying elements include nickel and for superior corrosion resistant properties, molybdenum.

Stainless steel has the following unique advantages:

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

ACO drainage is manufactured from austenitic stainless steel, grades 1.4301 or 1.4404 according to EN 10088 (304 or 316L according to AISI) and is ideal for applications including food processing, leisure, dairy, brewing, pharmaceutical, chemical and petrochemical industries.

Surface treatment of stainless steel

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

Finishes used by ACO include:

Pickle passivation (acid treatment)
All ACO drainage is pickle passivated by immersing products in a series of acid baths. This is a fundamental requirement for removing iron embedded particulates introduced in the fabrication process and also for restoring the chromium depleted regions generated by the welding process. ACO has one of the largest and most advanced pickle passivation installation in Europe which ensures the optimum corrosion resistance of our products.

Electropolishing (electrochemical process)
After pickle passivation, some products are then immersed in an electrolytic fluid in which the products become the anode of a direct current electrical circuit. This process of characterized by a selective attack of the surface of the components whereby upstanding roughness is preferentially dissolved and will yield a progressively smoother, brighter surface. All hygienic box channel grates are electro-polished as a standard.

Brushing (mechanical process)
ACO channels have brushed upper edge for aesthetical reasons.

Standards and Certifications

ACO gully and ACO channel

ACO gully and ACO channel ranges are designed, manufactured, tested and certified in accordance with EN 1253. Furthermore ACO modular channels are also certified in accordance with EN 1433 and they are CE marked.

We apply the relevant hygienic design principles reserved for food contact surfaces EN 1672, EN ISO 14159 and EHEDG documents No. 8, 13 and 44.

ACO fire protective kit is tested according to EN 1366-2 (Fire resistence tests for service installations) and classified according to EN 13501 (Fire classification of construction products and building elements).

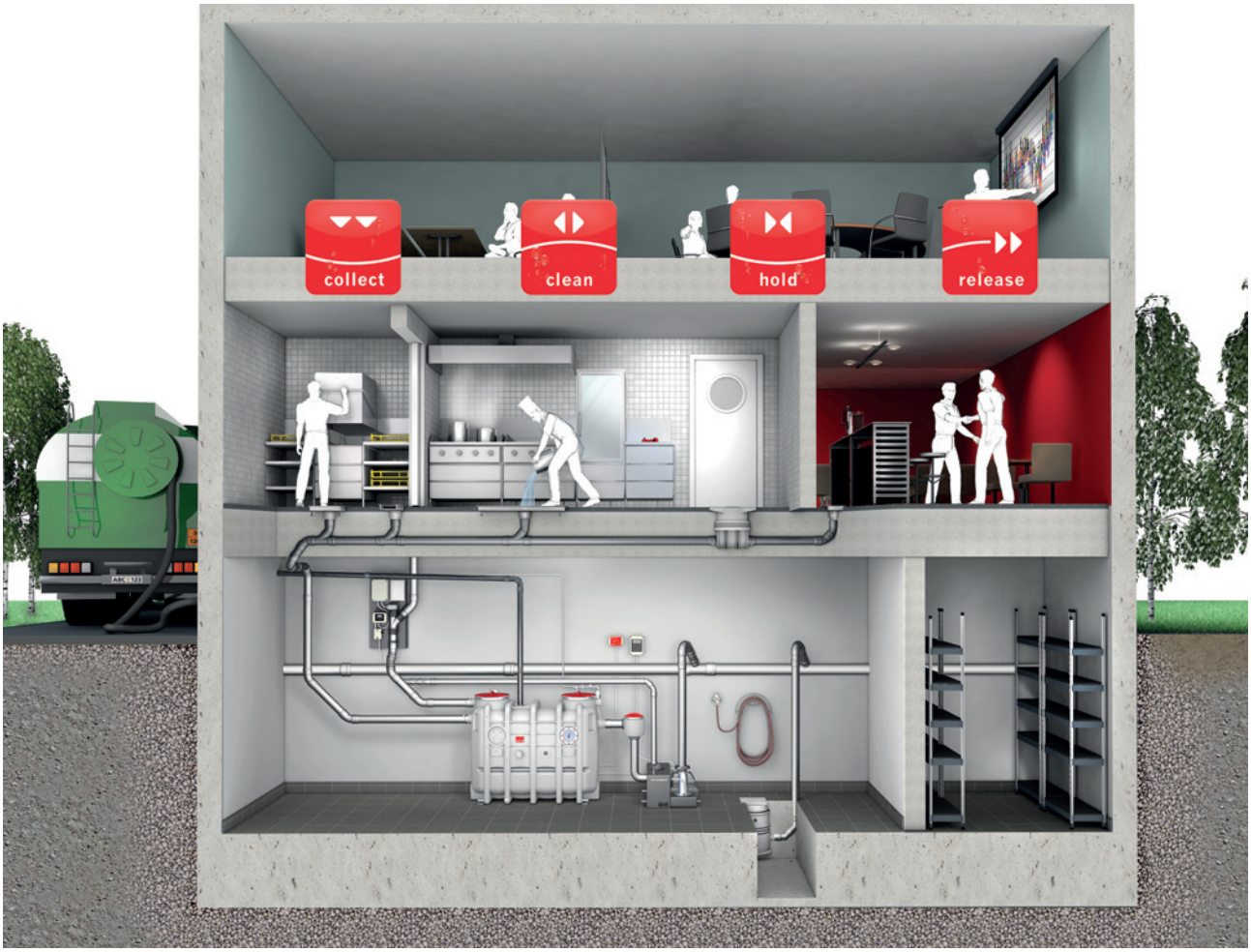
ACO pipe

The ACO pipe push-fit system is classified and certified as non-combustible product and is manufactured in compliance with EN 1124. This standard classifies the ACO pipe systems as class A1 fire resistant (highest rating).

ACO pipe systems are certified also by SITAC authority as fire resistant (cert. no. 0410-01).

Special certificate of fire resistance for coated pipes (no. CSI PK-13-083) is available.

System overview and benefits



Benefits

ACO provides solutions which optimise food safety, employee´s health and safety and water protection. Every ACO product therefore safely controls the water to ensure that it can be hygienically, economically and ecologically managed in a viable way.

Food safety

- ACO hygienic drainage fulfils hygienic requirements to prevent harmful bacteria contamination. We apply relevant hygienic design principles reserved for food contact surfaces as recommended by EHEDG.
- Our product design ensures minimal build-up of food particles and debris as well as a safe connection with the surrounding floor to minimise any opportunity for bacteria to grow throughout the drainage system.
- Sleek slope function and hygienically designed products ensure our system is fully drainable eliminating the stagnant odour of waste water.

Cost control

- ACO drainage systems can be easily maintained, reducing associated cleaning costs thanks to their functional design and cleaning recommendations which have been developed in partnership with premium cleaning agent suppliers.
- ACO's advanced manufacturing technologies ensure durability and our special surface treatment guarantees corrosion resistance. Our systems perform effectively at all times and keep disruption to a minimum.
- We provide expertise in drainage system planning, correct installation and creating a safe connection with the surrounding floor to avoid unnecessary cost.

Health & Safety

- For additional safety in high risk areas that require heavy water usage; slip resistant grating is available.
- Each component of the drainage system is easy to remove and clean, and there are no sharp edges for optimum employee´s safety.
- ACO drainage products have a fire resistant solution certified according to EN 136.

Industrial Drainage selection guide

Application

The layout of the drainage system as well as the design of drainage items has an impact on future operational effectiveness as well as on costs. This guide offers a range of basic areas which need to be considered when specifying a drainage system.

To specify an appropriate drainage system for a particular application, the zone of operation, amount and frequency of water used is crucial.

	Zones with hight risk for food safety	Zones with medium or low risk for food safety	Zones without direct risk for food safety
Wet process / Wet cleaning	▪ Hygienic design - one piece solution without connections; ladder or cast gratings ▪ High retention - high flow rate ▪ Slip resistant - high requirement	▪ Hygienic design - connections and mesh gratings could be considered if cleaning and sanitation procedures allow ▪ High retention - high flow rate ▪ Slip resistant - high requirement	▪ Hygienic design is recommended for easy cleaning and maintenance; combination of products could be considered for easy layout design ▪ High retention - high flow rate ▪ Slip resistant - high requirement
Dry process / Wet cleaning	▪ Hygienic design - one piece solution without connections; ladder or cast gratings ▪ High flow rate ▪ Slip resistant - medium requirement	▪ Hygienic design - connections and mesh gratings could be considered if cleaning and sanitation procedures allow ▪ High retention - high flow rate ▪ High flow rate ▪ Slip resistant - medium requirement	▪ Hygienic design is recommended for easy cleaning and maintenance; combination of products could be considered for easy layout design ▪ High flow rate ▪ Slip resistant - medium requirement
Dry process / Controlled wet cleaning	▪ Hygienic design - one piece solution without connections; ladder or cast or odour proof gratings ▪ Medium to low flow rate	▪ Hygienic design - connections and mesh gratings could be considered if cleaning and sanitation procedures allow ▪ Medium to low flow rate ▪ Odour proof cover	▪ Hygienic design is recommended for easy cleaning and maintenance; combination of products could be considered for easy layout design ▪ Medium to low flow rate ▪ Odour proof cover

Drainage type

Based on the basic application, the type of drainage needs to be selected according to the layout of the operational space and technology employed.

Point drainage	Linear drainage
	

Material resistance

The chemical mixture of the waste water from the process and/or from the cleaning as well as the temperature of the final mixture influences the material resistance of the drainage system.

ACO drainage is manufactured from austenitic stainless steel; grades 1.4301 or 1.4404 according to EN 10088 (304 or 316L according to AISI) and is ideal for applications within food processing, dairy, brewery, commercial kitchen, pharmaceutical, chemical, petrochemical industries and leisure.

Beside stainless steel, drainage products contain also sealing materials:

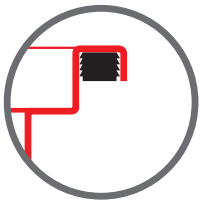
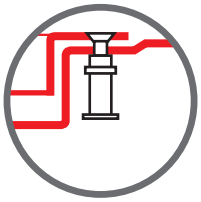
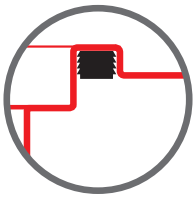
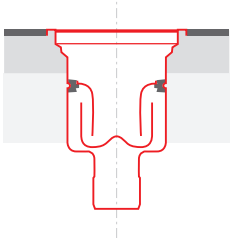
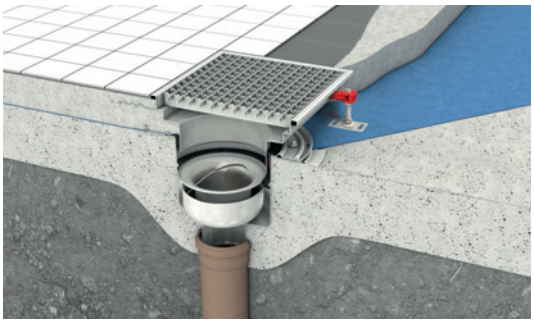
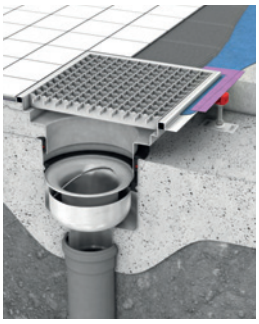
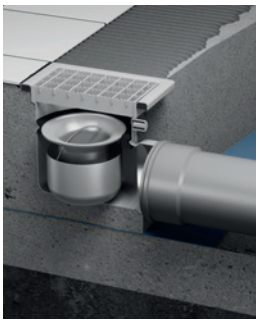
ACO gullies – all the seals are made of NBR (acryl nitrile-butadiene rubber)
ACO box and slot channels – flange connection seals are made of NBR (acryl nitrile-butadiene rubber)
ACO modular box and slot channels – flange connection seals are made of NBR (acryl nitrile-butadiene rubber)
ACO pipes – socket seals can be made from either EPDM (ethylene propylene diene monomer) or FPM (fluoroelastomer) – Viton.

For details of material resistance see page 230 or contact our Sales/Technical department.

Floor structure and finish

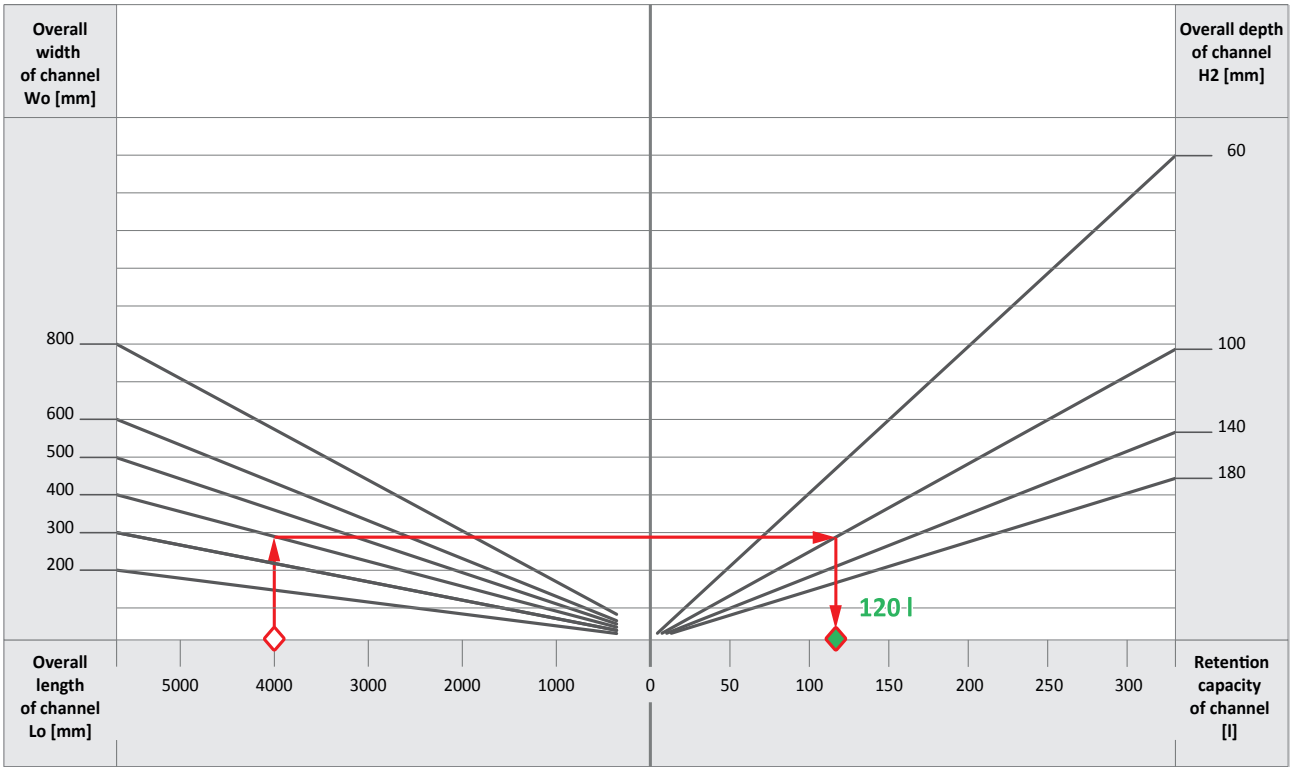
Depending on the composition of the floor construction; the appropriate type of gully or channel should be selected. If there is insulation in the floor structure, the O-ring needs to be removed from the friction ring, which will allow the water from the insulation to be drained to the gully body.

Depending on the floor finish; the appropriate edge of the channel or gully top should be selected.

	Channels + Telescopic gullies			Fixed height gully
Floor finish **Channel or gully edge**	**Tiled, concrete or resin floor** **Standard edge**	**Vinyl** **Vinyl edge**	**Tiled (thin bed installation)** **Extended edge**	**Tiled, concrete or resin floor** **Standard edge**
Channel or gully top drawing				
Waterproof membrane connection	Connected to gully body		Connected to channel / gully top	Independent of the gully
Installation example				
Gully body type	Telescopic adjustable Adhesive bonding flange or mechanical clamping flange		Telescopic adjustable Location flange	Fixed height gully
Gully body picture				

Retention capacity

Depending on the application, the appropriate retention capacity should be considered.

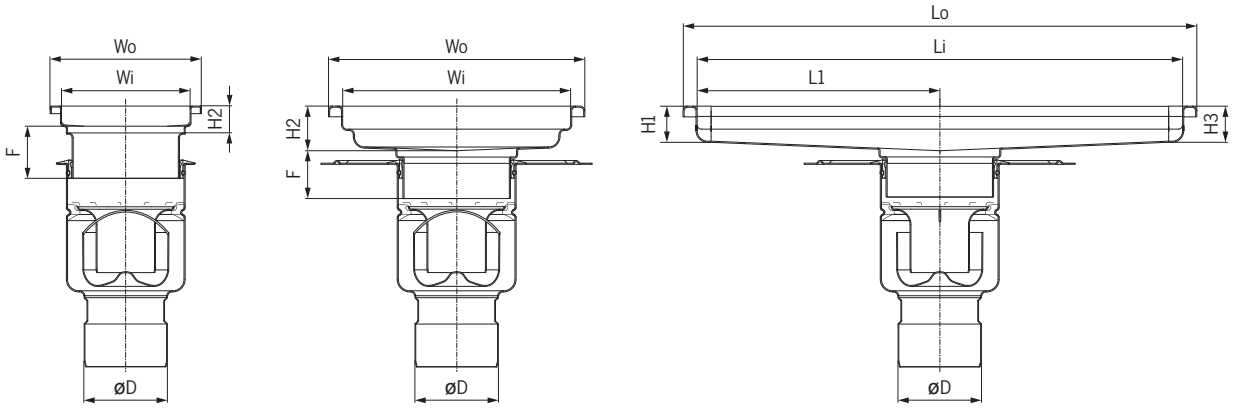


Example: channel length 4000mm, width 400mm, depth 100mm, retention capacity 120l.

Channel geometry

Based on the retention capacity considered, as well as the floor structure, the particular dimensions of a channel or gully top (for telescopic solution) need to be specified.

For the channel a construction height at the outlet position as well as the position of the outlet and the height of the endcaps has to be defined.



Flow rates

Flow rates reflect the system´s ability to constantly drain a certain amount of water. Flow rate is generally defined by the ACO gully size.

Flow rates			
Outlet position	Gully type	Outlet diameter [mm]	Minimal flow rate [l/s]
Vertical outlet	142	70/75	1.4
		100/110	1.6
	157	70/75	2.7
		100/110	3.5
	218	100/110	5.0
		150/160	5.0
	EG150	70/75	1.2
		100/110	1.2
Horizontal outlet	142	70/75	1.4
		100/110	1.6
	157	70/75	2.6
		100/110	2.8
	218	100/110	4.4
	EG150	70/75	1.2

Flow rates are measured according to EN 1253. Flow rate performance is without silt basket (flow rates with empty silt basket are approximately 15% lower than the values stated)

Accessories

For the collection of solid parts, the gully or channel should be fitted with a silt basket.

Telescopic connection without flange for waterproofing	**Telescopic connection with flange for waterproofing**		
ACO gully EG150	ACO hygienic gully 142	ACO hygienic gully 157	ACO hygienic gully 218
Accessories delivered as standard with the gully			
▪ Friction ring	▪ Friction ring ▪ FAT ▪ FAT support	▪ Friction ring ▪ FAT ▪ FAT support	▪ Friction ring ▪ FAT ▪ FAT support
Optional accessories			
▪ Sieve ▪ FAT with silt basket ▪ FAT	▪ Silt basket for fixed height gully 0.3 l ▪ Silt basket for telescopic gully 0.4 l	▪ Silt basket for vertical gully 0.6 l ▪ Silt basket for horizontal gully 0.3 l	▪ Silt basket for vertical gully 1.4 l ▪ Silt basket for horizontal gully 0.7 l

Gratings

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

- Hygiene (cleanability)
- Load class
- Slip resistant

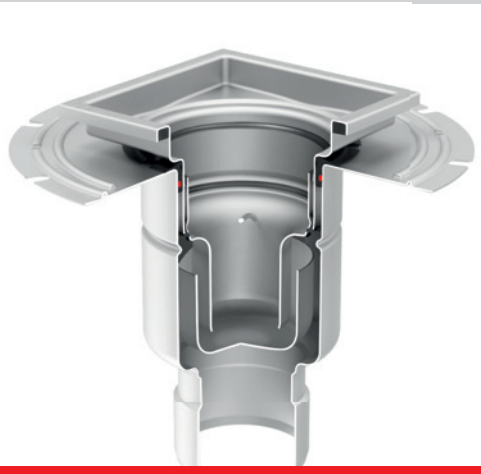
	Cast grating	Ladder grating		Mesh grating	
	Antislip	Antislip	Plain	Antislip	Plain
Slip resistant Pendulum test BS 7976-2	Low	Low	Moderate	Low	Moderate
Slip resistant Ramp test DIN 51130	R13	R11	R9	R11	R9
Load classes	M 125	R 50, M 125	R 50, M 125	L 15	L 15

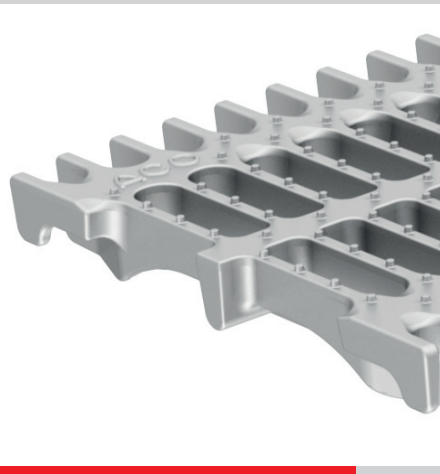
Load class

Though it is recommended to avoid traffic across the drainage items to minimize risk of floor/drainage connection failures by dynamic loading; proper load class defined by grating has to be considered based on the defined traffic during future operation.

Load class Application	Load class according to EN 1253	Description
	**L 15**	Areas with light vehicular traffic, such as: ▪ In commercially used premises and public areas
	**R 50***	Areas with vehicular traffic, such as: ▪ In commercially used premises and factories
	**M 125**	Areas with vehicular traffic such as: ▪ Workshops, factories & car parks
	**N 250***	Heavy duty industrial areas subject to forklift traffic, such as: ▪ Food processing areas, chemical or process plants

* New load classes in EN 1253-1 (enter into force in 2015)



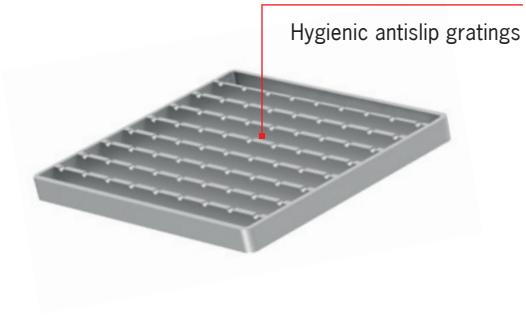


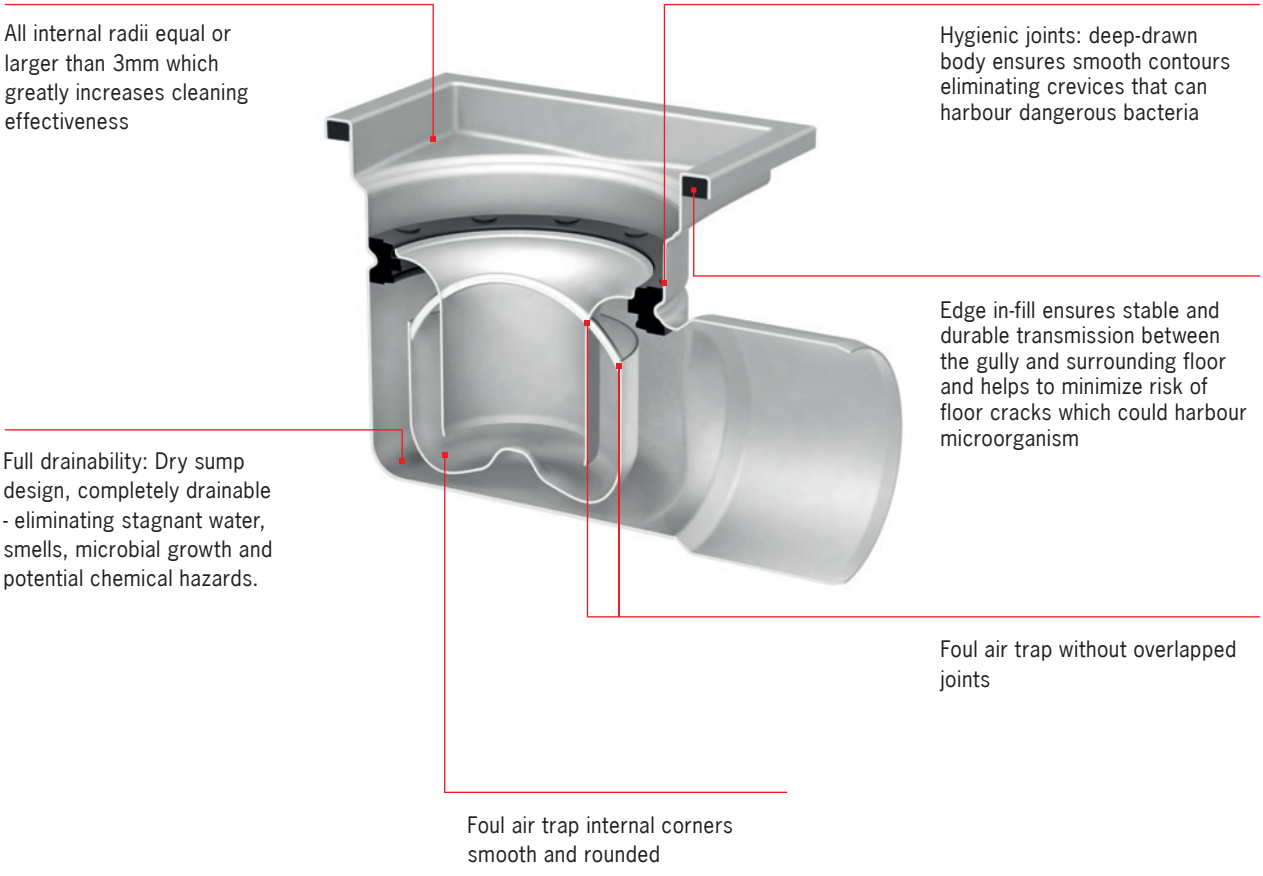
Hygienic design

ACO hygienic drainage fulfils strongest hygienic requirements to prevent harmful bacterial contamination. We apply the relevant hygienic design principles reserved for food processing equipment EN 1672, EN ISO 14159 and EHEDG document No. 8, 13 and 44 to the gully design.

ACO gully hygienic features:

- Full drainability
- Internal radii equal or larger than 3 mm
- Hygienic joints
- Edge infill
- Stainless steel grade min. 1.4301 according to EN 10088 (304 according to AISI)
- Fully pickled and passivated





System overview

ACO gully range is available in a number of versions featuring different flow rates, grating designs, sizes and spigot outlet diameters to suit various applications.

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

The ACO gully range is available with vertical or horizontal spigot outlets.

Fixed height gullies are convenient and free-standing units which are suitable for cementitious, resin or tiled floors.

Telescopic gullies can be installed either with a gully top or ACO channel in most flooring constructions, including floors with waterproofing membranes.

Fixed height solution

Telescopic solution

1 Gratings
2 Silt basket
3 Foul air trap
4 Foul air trap support
5 ACO gully body
6 Gully top
7 Friction ring
8 Leveling feet

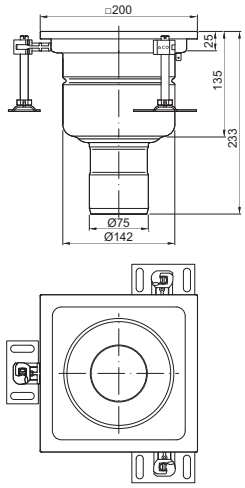
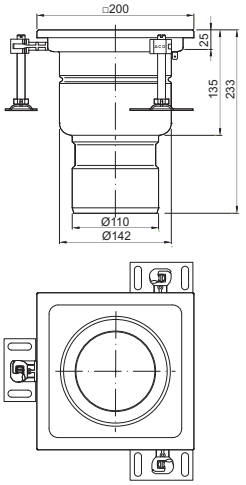
Fixed height – vertical outlet

Product information

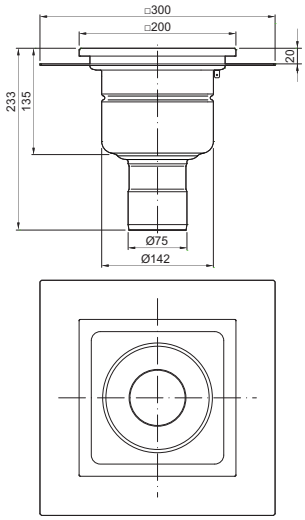
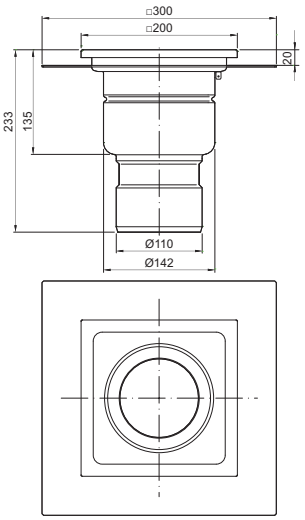
Fixed height gully can be specified as a point drainage in areas where waterproofing is independent of the gully body. Those gullies can be combined with different grates depending on requested load class.

- Hygienic design following EN 1672, EN ISO 14159 and EHEDG document No. 8, 13 and 44
- Tested and certified according to EN 1253
- Available in 1.4301 (304) or 1.4404 (316L) grades of stainless steel
- Fire tested and certified solution available for classes EI 90 – EI 180 (EN 13 501-2)
- Fully removable and easily cleanable stainless steel foul air trap (FAT)
- Outlet diameter DN 70/DN 100 (75 mm or 110 mm O.D.)
- Wide range of gratings including antislip solution

Order information

	Top size □ [mm]	Outlet diameter Ø [mm]	Foul air trap	Material	Item number
Standard					
	200 x 200	75	Without FAT	1.4301	**414700**
				1.4404	**414800**
			With FAT	1.4301	**414701**
				1.4404	**414801**
	200 x 200	110	Without FAT	1.4301	**414702**
				1.4404	**414802**
			With FAT	1.4301	**414703**
				1.4404	**414803**

Gratings for gully top 200 x 200 mm ➔ Page 61
Accessories for ACO hygienic gully 142 ➔ Page 72

	Top size □ [mm]	Outlet diameter Ø [mm]	Foul air trap	Material	Item number
Extended edge					
	200 x 200	75	With FAT	1.4301	**414744**
				1.4404	**414844**
	200 x 200	110	With FAT	1.4301	**414745**
				1.4404	**414845**

Gratings for gully top 200 x 200 mm ➔ Page 61
Accessories for ACO hygienic gully 142 ➔ Page 72

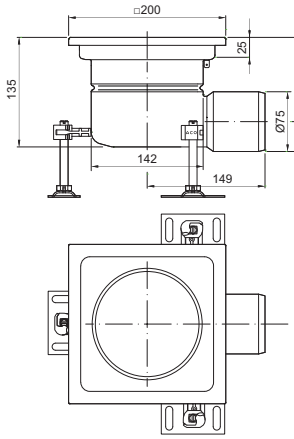
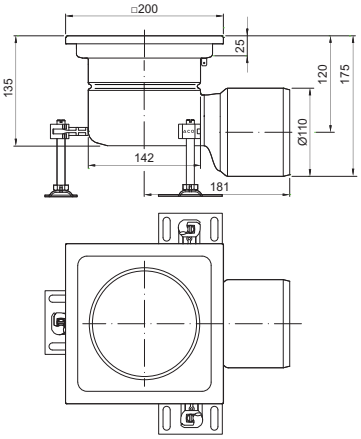
Fixed height – horizontal outlet

Product information

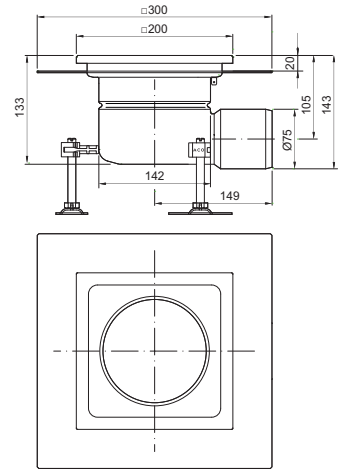
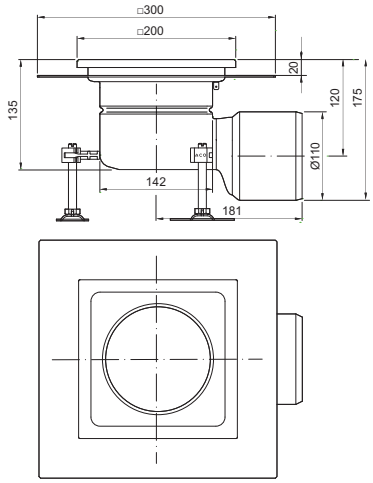
Fixed height gully can be specified as a point drainage in areas where waterproofing is independent of the gully body. Those gullies can be combined with different grates depending on requested load class.

- Hygienic design following EN 1672, EN ISO 14159 and EHEDG document No. 8, 13 and 44
- Tested and certified according to EN 1253
- Available in 1.4301 (304) or 1.4404 (316L) grades of stainless steel
- Fully removable and easily cleanable stainless steel foul air trap (FAT)
- Outlet diameter DN 70/DN 100 (75 mm or 110 mm O.D.)
- Wide range of gratings including antislip solution

Order information

	Top size □ [mm]	Outlet diameter Ø [mm]	Foul air trap	Material	Item number
Standard edge					
	200 x 200	75	Without FAT	1.4301	**414704**
				1.4404	**414804**
			With FAT	1.4301	**414705**
				1.4404	**414805**
	200 x 200	110	Without FAT	1.4301	**414706**
				1.4404	**414806**
			With FAT	1.4301	**414707**
				1.4404	**414807**

Gratings for gully top 200 x 200 mm ➔ Page 61
Accessories for ACO hygienic gully 142 ➔ Page 72

	Top size □ [mm]	Outlet diameter Ø [mm]	Foul air trap	Material	Item number
Extended edge					
	200 x 200	75	With FAT	1.4301	**414746**
				1.4404	**414846**
	200 x 200	110	With FAT	1.4301	**414747**
				1.4404	**414847**

Gratings for gully top 200 x 200 mm ➔ Page 61
Accessories for ACO hygienic gully 142 ➔ Page 72

Telescopic – vertical outlet

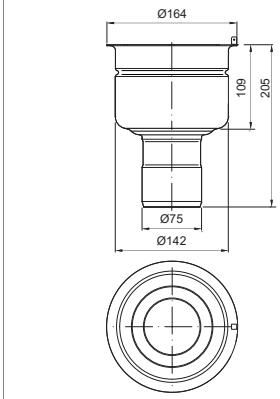
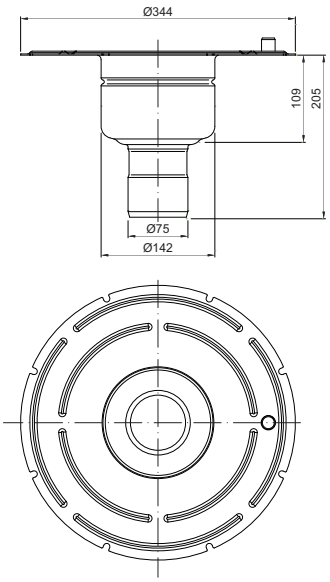
Product information

Telescopic gully can be combined either with gully tops or with linear drainage channels.

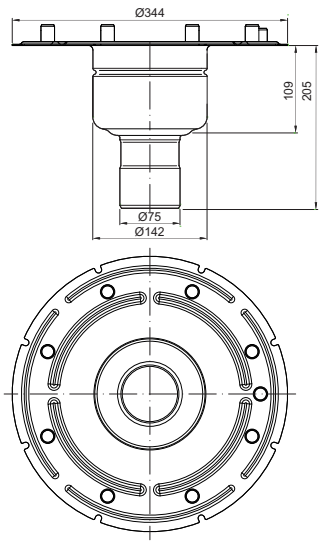
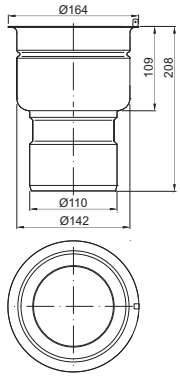
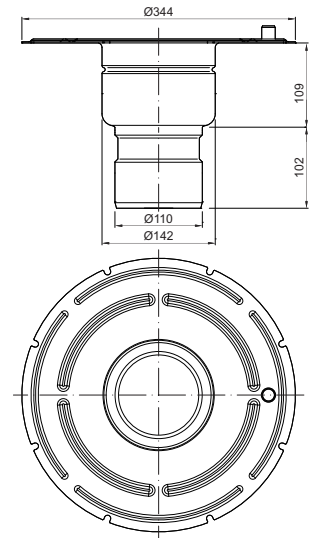
Telescopic solution enables height and rotational adjustment of connected gully top or channel. Gullies are equipped with flanges for connection of waterproof membrane.

- Hygienic design following EN 1672, EN ISO 14159 and EHEDG document No. 8, 13 and 44
- Tested and certified according to EN 1253
- Available in 1.4301 (304) or 1.4404 (316L) grades of stainless steel
- Fire tested and certified solution available for classes EI 90 – EI 180 (EN 13 501-2)
- Fully removable and easily cleanable stainless steel foul air trap (FAT)
- Outlet diameter DN 70/DN 100 (75 mm or 110 mm O.D.)
- Telescopic friction ring included
- Wide range of gratings including antislip solution

Order information

	Type of flange	Outlet diameter Ø [mm]	Foul air trap	Material	Item number
	Location flange	75	Without FAT	1.4301	**414708**
				1.4404	**414808**
			With FAT	1.4301	**414709**
				1.4404	**414809**
	Adhesive bonding flange	75	Without FAT	1.4301	**414710**
				1.4404	**414810**
			With FAT	1.4301	**414711**
				1.4404	**414811**

Accessories for ACO hygienic gully 142 → Page 72

	Type of flange	Outlet diameter Ø [mm]	Foul air trap	Material	Item number
	Mechanical clamping flange	75	Without FAT	1.4301	**414712**
				1.4404	**414812**
			With FAT	1.4301	**414713**
				1.4404	**414813**
	Location flange	110	Without FAT	1.4301	**414714**
				1.4404	**414814**
			With FAT	1.4301	**414715**
				1.4404	**414815**
	Adhesive bonding flange	110	Without FAT	1.4301	**414716**
				1.4404	**414816**
			With FAT	1.4301	**414717**
				1.4404	**414817**

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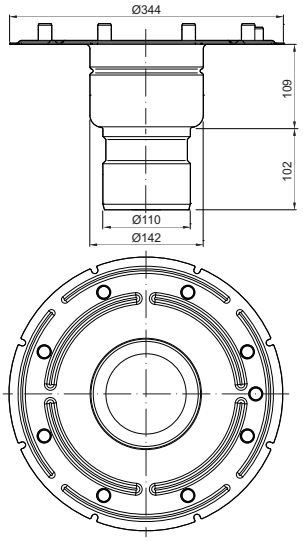
	Type of flange	Outlet diameter Ø [mm]	Foul air trap	Material	Item number
	Mechanical clamping flange	110	Without FAT	1.4301	**414718**
				1.4404	**414818**
			With FAT	1.4301	**414719**
				1.4404	**414819**

Accessories for ACO hygienic gully 142 → Page 72

Telescopic – horizontal outlet

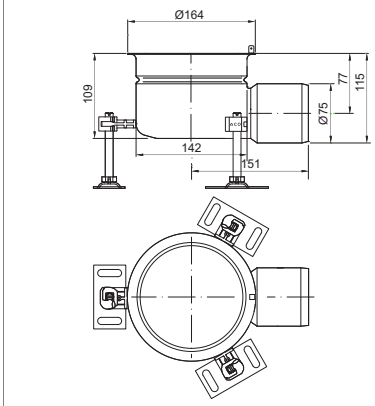
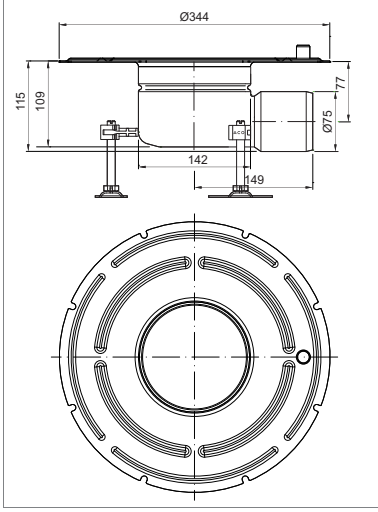
Product information

Telescopic gully can be combined either with ACO gully top or ACO channel in most flooring constructions.

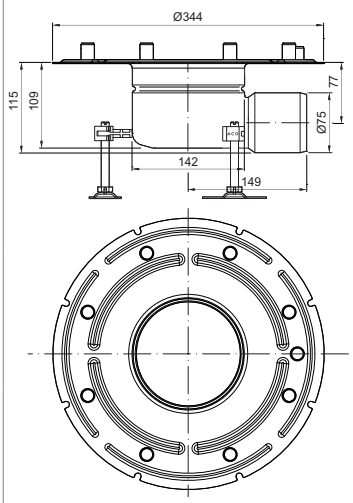
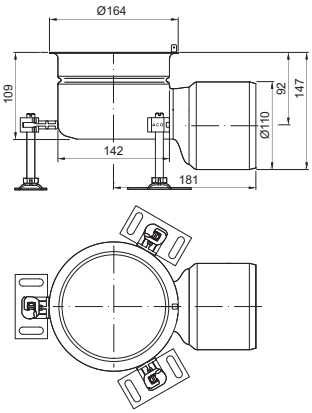
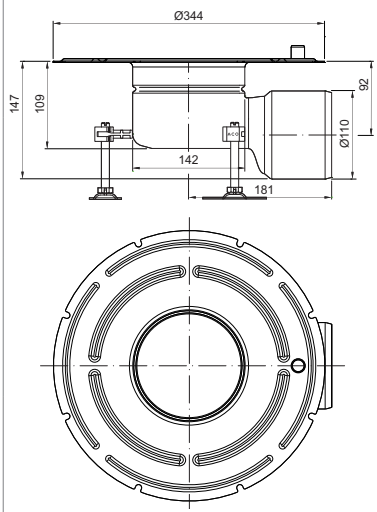
Telescopic solution enables height and rotational adjustment of connected gully top or channel. Gullies are equipped with flanges for connection of waterproof membrane.

- Hygienic design following EN 1672, EN ISO 14159 and EHEDG document No. 8, 13 and 44
- Tested and certified according to EN 1253
- Available in 1.4301 (304) or 1.4404 (316L) grades of stainless steel
- Gully top frame size: 200 x 200 mm Outlet diameter DN 70/DN 100 (75 mm or 110 mm O.D.)
- Gully body with location flange or integrated membrane flange for either adhesive bonding or mechanical clamp
- Telescopic friction ring included

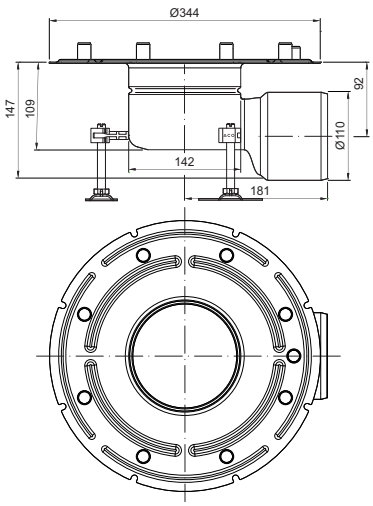
Order information

	Type of flange	Outlet diameter Ø [mm]	Foul air trap	Material	Item number
	With location flange	75	Without FAT	1.4301	**414720**
				1.4404	**414820**
			With FAT	1.4301	**414721**
				1.4404	**414821**
	With adhesive bonding flange	75	Without FAT	1.4301	**414722**
				1.4404	**414822**
			With FAT	1.4301	**414723**
				1.4404	**414823**

Accessories for ACO hygienic gully 142 → Page 72

	Type of flange	Outlet diameter Ø [mm]	Foul air trap	Material	Item number
	With mechanical clamping flange	75	Without FAT	1.4301	**414724**
				1.4404	**414824**
			With FAT	1.4301	**414725**
				1.4404	**414825**
	With location flange	110	Without FAT	1.4301	**414726**
				1.4404	**414826**
			With FAT	1.4301	**414727**
				1.4404	**414827**
	With adhesive bonding flange	110	Without FAT	1.4301	**414728**
				1.4404	**414828**
			With FAT	1.4301	**414729**
				1.4404	**414829**

Accessories for ACO hygienic gully 142 → Page 72

	Type of flange	Outlet diameter Ø [mm]	Foul air trap	Material	Item number
	With mechanical clamping flange	110	Without FAT	1.4301	**414730**
				1.4404	**414830**
			With FAT	1.4301	**414731**
				1.4404	**414831**

Accessories for ACO hygienic gully 142 → Page 72

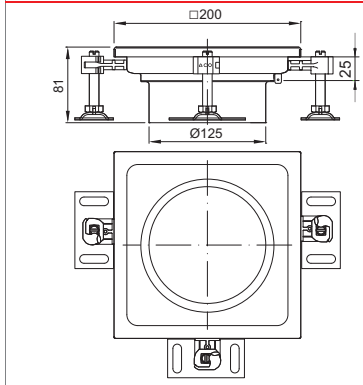
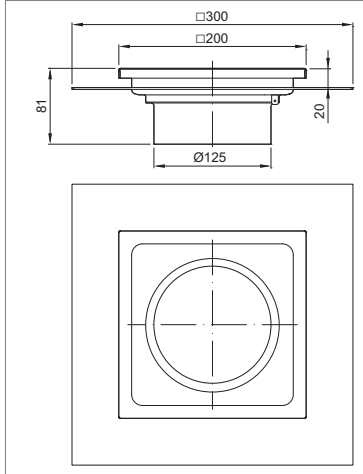
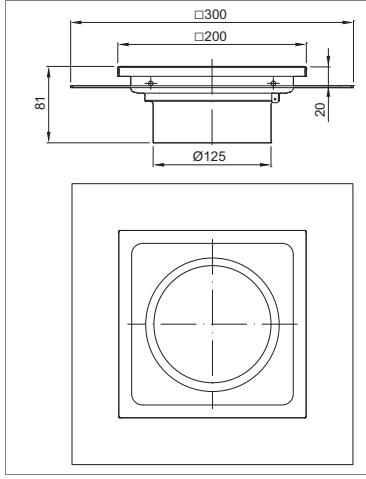
Gully top – telescopic

Product information

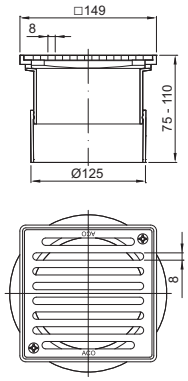
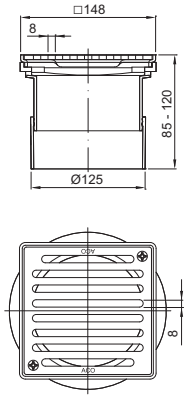
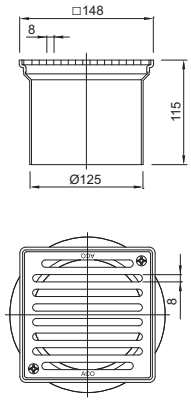
Gully top can be combined with telescopic gully. Different gully top types are available depending on floor structure.

- Available in 1.4301 (304) or 1.4404 (316L) grades of stainless steel
- Wide range of gratings to load class L 15 – M 125 (EN 1253) or C 250 (EN 124) including antislip solution

Order information

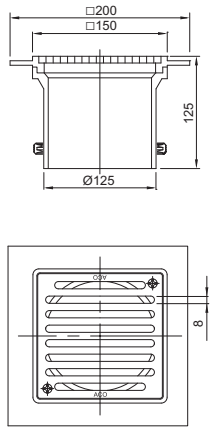
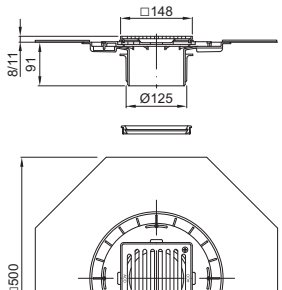
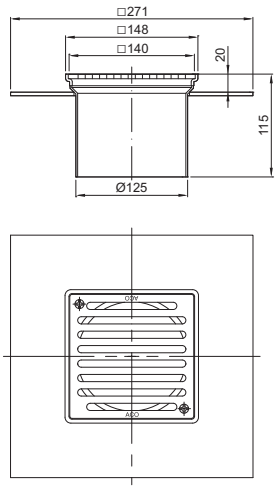
	Gully top type	Gully top size □ [mm]	Material	Item number
	Standard edge	200 x 200	1.4301	**414732**
			1.4404	**414832**
	Extended edge	200 x 200	1.4301	**414734**
			1.4404	**414834**
	Extended top with drainage holes	200 x 200	1.4301	**414735**
			1.4404	**414835**

Gratings for gully top 200 x 200 mm ➔ Page 61

	Gully top type	Gully top size □ [mm]	Material	Item number
	Plastic top with stainless steel grating (K3)	149 x 149	Plastic	414903 *
	MEKU top with stainless steel grating (K3)	148 x 148	Plastic	414904 *
	Square top with stainless steel grating (K3)	148 x 148	1.4301	414905 *

* Hygienic design following EN 1672, EN ISO 14159 and EHEDG document No. 8, 13 and 44 not applied.

Gratings for gully top 200 x 200 mm ➔ Page 61

	Gully top type	Gully top size □ [mm]	Material	Item number
	Plastic top with stainless steel grating (K3)	150 x 150	Plastic	414906 *
	Plastic thin-bed top with sliding frame and stainless steel grating (K3)	148 x 148	Plastic	414907 *
	Square top with sanded flange and stainless steel grating (K3)	148 x 148	1.4301	414909 *

* Hygienic design following EN 1672, EN ISO 14159 and EHEDG document No. 8, 13 and 44 not applied.

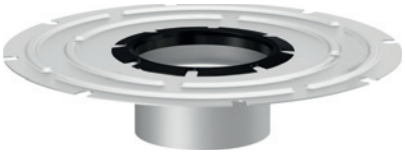
Gratings for gully top 200 x 200 mm ➔ Page 61

Raising piece – telescopic

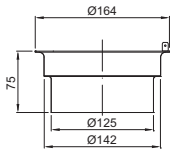
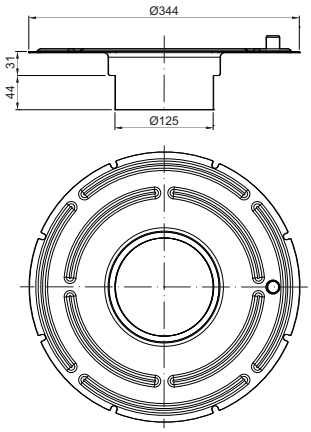
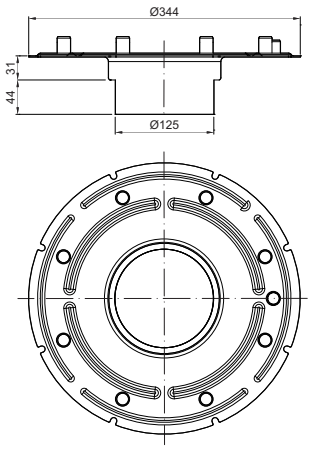
Product information

Raising piece can be used for floor structures where multi waterproofing is needed (heat insulation) or where construction height of the slab needs to be increased.

- Variaty of flanges for membranes
- Available in grades 1.4301 (304) or 1.4404 (316L) of stainless steel



Order information

	Type of flange	Material	Item number
	Location flange	1.4301	**414736**
		1.4404	**414836**
	Adhesive bonding flange	1.4301	**414737**
		1.4404	**414837**
	Mechanical clamping flange	1.4301	**414738**
		1.4404	**414838**

Accessories for ACO hygienic gully 142 → Page 72

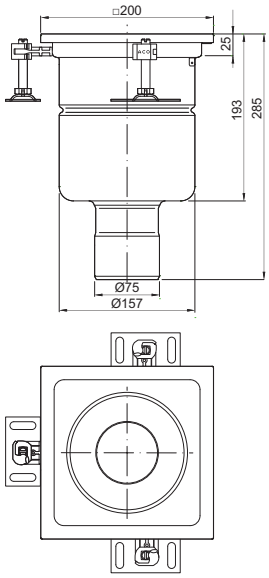
Fixed height – vertical outlet

Product information

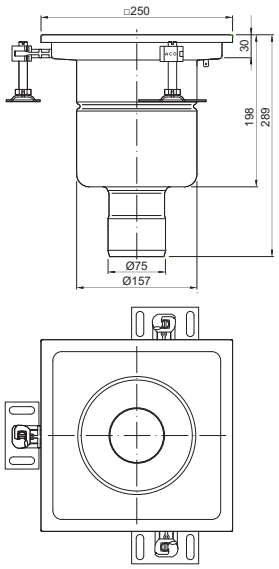
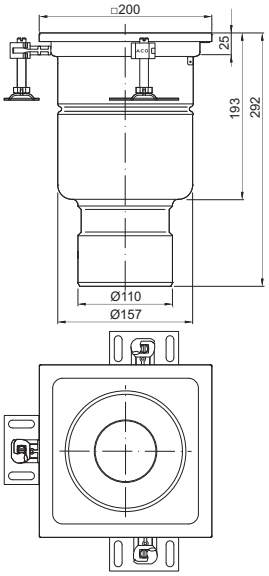
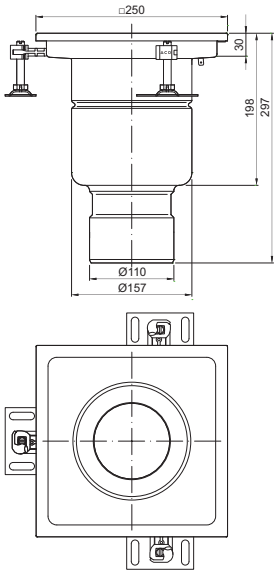
Fixed height gully can be specified as a point drainage in areas where waterproofing is independent of the gully body. Those gullies can be combined with different grates depending on requested load class.

- Hygienic design following EN 1672, EN ISO 14159 and EHEDG document No. 8, 13 and 44
- Tested and certified according to EN 1253
- Available in 1.4301 (304) or 1.4404 (316L) grades of stainless steel
- Wide range of gratings including antislip solution
- Fully removable stainless steel FAT
- Fire tested and certified solution available for classes EI 90 – EI 180 (EN 13 501-2)
- Gully top frame size: 200 x 200 mm or 250 x 250 mm
- Outlet diameter DN 70/DN 100 (75 mm or 110 mm O.D.)

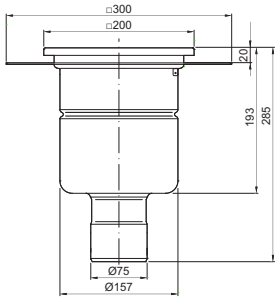
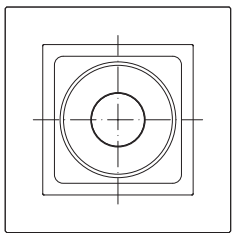
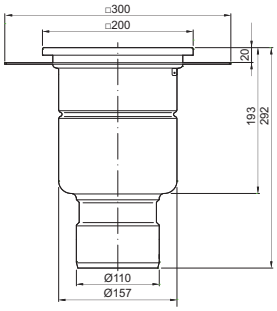
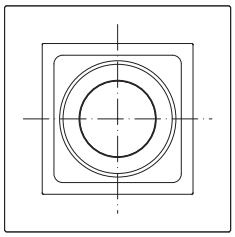
Order information

	Top size □ [mm]	Outlet diameter Ø [mm]	Foul air trap	Material	Item number
Standard edge					
	200 x 200	75	Without FAT	1.4301	**408000**
				1.4404	**408100**
			With FAT	1.4301	**408001**
				1.4404	**408101**

Gratings for gully top 200 x 200 mm ➔ Page 61
Accessories for ACO hygienic gully 157 ➔ Page 73

	Top size □ [mm]	Outlet diameter Ø [mm]	Foul air trap	Material	Item number
	250 x 250	75	Without FAT	1.4301	**408016**
				1.4404	**408116**
			With FAT	1.4301	**408017**
				1.4404	**408117**
	200 x 200	110	Without FAT	1.4301	**408002**
				1.4404	**408102**
			With FAT	1.4301	**408003**
				1.4404	**408103**
	250 x 250	110	Without FAT	1.4301	**408018**
				1.4404	**408118**
			With FAT	1.4301	**408019**
				1.4404	**408119**

Gratings for gully top 200 x 200 mm ➔ Page 61
Gratings for gully top 250 x 250 mm ➔ Page 64
Accessories for ACO hygienic gully 157 ➔ Page 73

	Top size □ [mm]	Outlet diameter Ø [mm]	Foul air trap	Material	Item number
Extended edge					
 	200 x 200	75	With FAT	1.4301	**408047**
				1.4404	**408147**
 	200 x 200	110	With FAT	1.4301	**408099**
				1.4404	**408199**

Gratings for gully top 200 x 200 mm ➔ Page 61
Accessories for ACO hygienic gully 157 ➔ Page 73

Fixed height – horizontal outlet

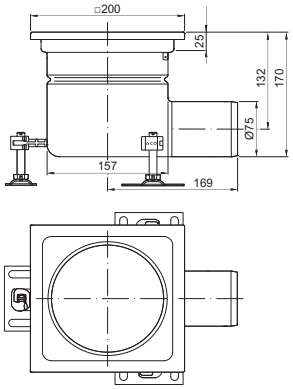
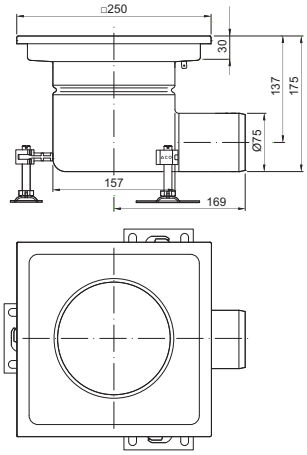
Product information

Fixed height gully can be specified as a point drainage in areas where waterproofing is independent of the gully body.

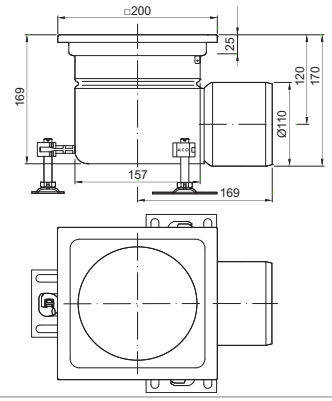
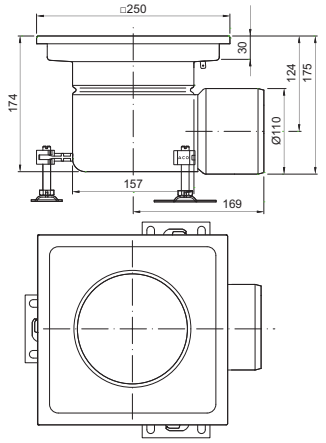
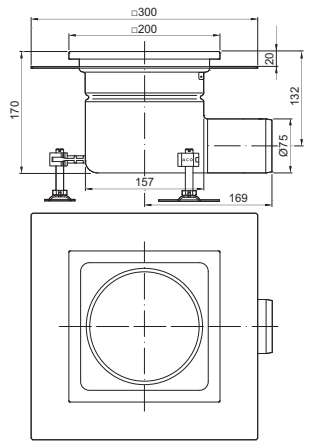
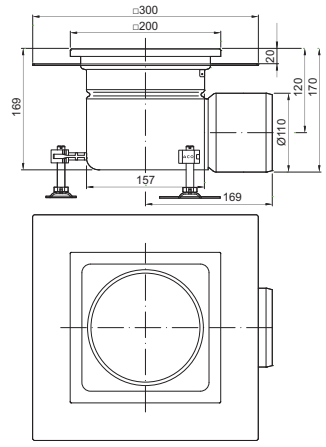
Those gullies can be combined with different grates depending on requested load class.

- Hygienic design following EN 1672, EN ISO 14159 and EHEDG document No. 8, 13 and 44
- Tested and certified according to EN 1253
- Available in 1.4301 (304) or 1.4404 (316L) grades of stainless steel
- Gully top frame size: 200 x 200 mm or 250 x 250 mm
- Outlet diameter DN 70/DN 100 (75 mm or 110 mm O.D.)
- Wide range of gratings including antislip solution

Order information

	Top size □ [mm]	Outlet diameter Ø [mm]	Foul air trap	Material	Item number
Standard edge					
	200 x 200	75	Without FAT	1.4301	**408008**
				1.4404	**408108**
			With FAT	1.4301	**408009**
				1.4404	**408109**
	250 x 250	75	Without FAT	1.4301	**408024**
				1.4404	**408124**
			With FAT	1.4301	**408025**
				1.4404	**408125**

Gratings for gully top 200 x 200 mm ➔ Page 61
Gratings for gully top 250 x 250 mm ➔ Page 64
Accessories for ACO hygienic gully 157 ➔ Page 73

	Top size □ [mm]	Outlet diameter Ø [mm]	Foul air trap	Material	Item number
	200 x 200	110	Without FAT	1.4301	**408010**
				1.4404	**408110**
			With FAT	1.4301	**408011**
				1.4404	**408111**
	250 x 250	110	Without FAT	1.4301	**408026**
				1.4404	**408126**
			With FAT	1.4301	**408027**
				1.4404	**408127**
Extended edge					
	200 x 200	75	With FAT	1.4301	**408014**
				1.4404	**408114**
	200 x 200	110	With FAT	1.4301	**408015**
				1.4404	**408115**

Gratings for gully top 200 x 200 mm ➔ Page 61
Gratings for gully top 250 x 250 mm ➔ Page 64
Accessories for ACO hygienic gully 157 ➔ Page 73

Telescopic – vertical outlet

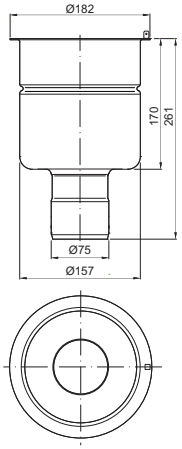
Product information

Telescopic gully can be combined either with gully top or ACO channel in most flooring constructions.

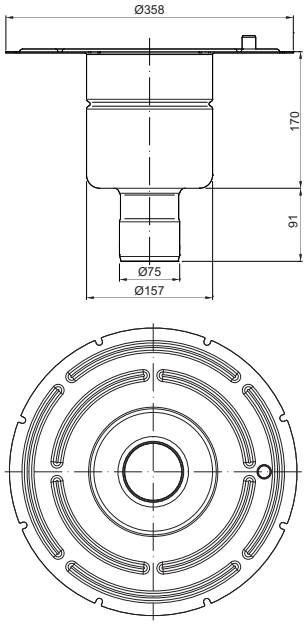
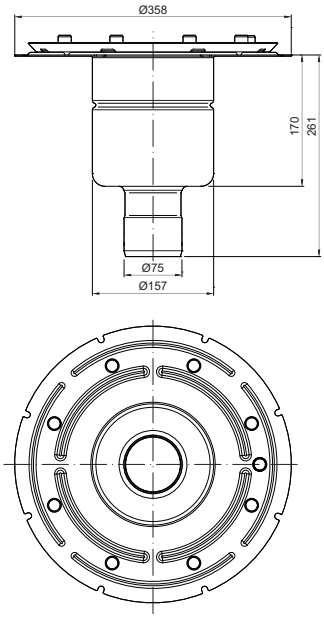
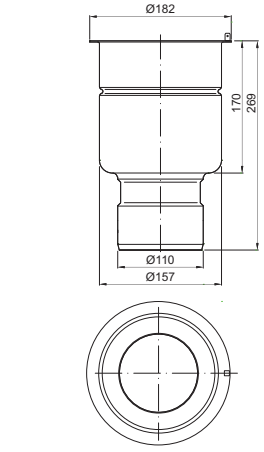
Telescopic solution enables height and rotational adjustment of connected gully top or channel. Gullies are equipped with flanges for connection of waterproof membrane.

- Hygienic design following EN 1672, EN ISO 14159 and EHEDG document No. 8, 13 and 44
- Tested and certified according to EN 1253
- Available in 1.4301 (304) or 1.4404 (316L) grades of stainless steel
- Gully top frame size: 200 x 200 mm or 250 x 250 mm
- Outlet diameter DN 70/DN 100 (75 mm or 110 mm OD)
- Telescopic friction ring included
- Gully body with location flange or integrated membrane flange for either adhesive bonding or mechanical clamp
- Fire tested and certified solution available for classes EI 90 – EI 180 (EN 13 501-2)

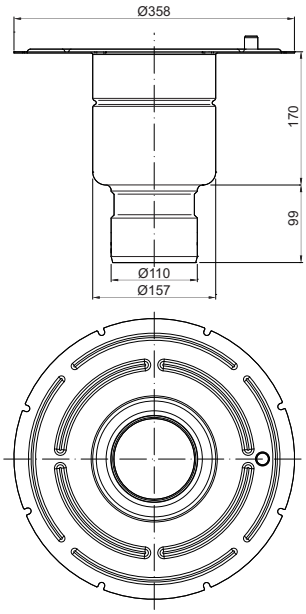
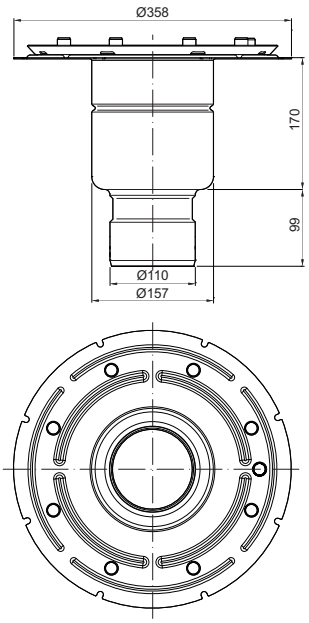
Order information

	Type of flange	Outlet diameter Ø [mm]	Foul air trap	Material	Item number
	Location flange	75	Without FAT	1.4301	**408048**
				1.4404	**408148**
			With FAT	1.4301	**408049**
				1.4404	**408149**

Accessories for ACO hygienic gully 157 → Page 73

	Type of flange	Outlet diameter Ø [mm]	Foul air trap	Material	Item number
	Adhesive bonding flange	75	Without FAT	1.4301	**408050**
				1.4404	**408150**
			With FAT	1.4301	**408051**
				1.4404	**408151**
	Mechanical clamping flange	75	Without FAT	1.4301	**408052**
				1.4404	**408152**
			With FAT	1.4301	**408053**
				1.4404	**408153**
	Location flange	110	Without FAT	1.4301	**408054**
				1.4404	**408154**
			With FAT	1.4301	**408055**
				1.4404	**408155**

Accessories for ACO hygienic gully 157 ➔ Page 73

	Type of flange	Outlet diameter Ø [mm]	Foul air trap	Material	Item number
	Adhesive bonding flange	110	Without FAT	1.4301	**408056**
				1.4404	**408156**
			With FAT	1.4301	**408057**
				1.4404	**408157**
	Mechanical clamping flange	110	Without FAT	1.4301	**408058**
				1.4404	**408158**
			With FAT	1.4301	**408059**
				1.4404	**408159**

Accessories for ACO hygienic gully 157 → Page 73

Telescopic – horizontal outlet

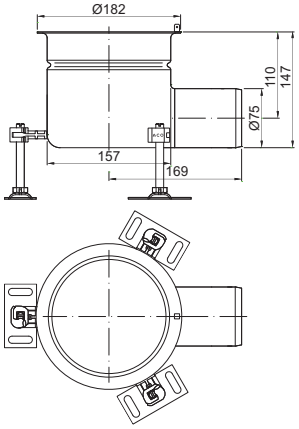
Product information

Telescopic gully can be combined either with gully top or ACO channel in most flooring constructions.

Telescopic solution enables height and rotational adjustment of connected gully top or channel. Gullies are equipped with flanges for connection of waterproof membrane.

- Hygienic design following EN 1672, EN ISO 14159 and EHEDG document No. 8, 13 and 44
- Tested and certified according to EN 1253
- Available in 1.4301 (304) or 1.4404 (316L) grades of stainless steel
- Suitable for all floor types including vinyl flooring
- Outlet diameter DN 70/DN 100 (75 mm or 110 mm OD)
- Telescopic friction ring included
- Gully body with location flange or integrated membrane flange for either adhesive bonding or mechanical clamp

Order information

	Type of flange	Outlet diameter Ø [mm]	Foul air trap	Material	Item number
	Location flanget	75	Without FAT	1.4301	**408072**
				1.4404	**408172**
			With FAT	1.4301	**408073**
				1.4404	**408173**

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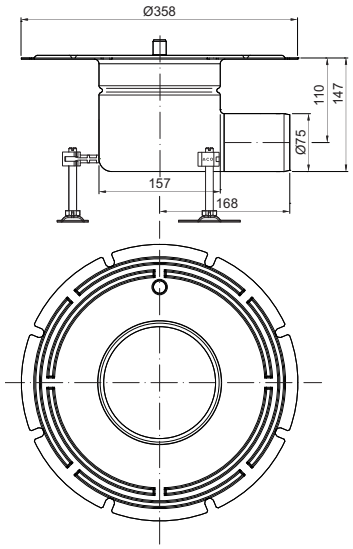
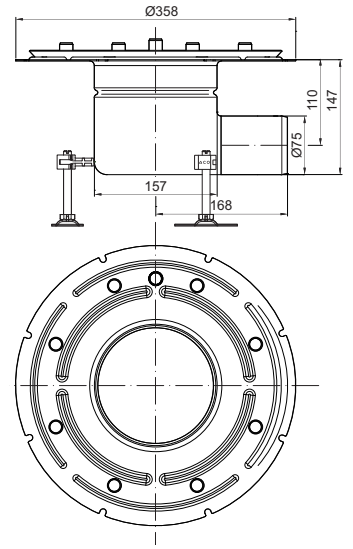
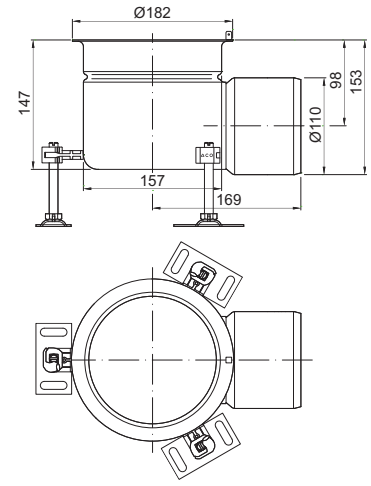
	Type of flange	Outlet diameter Ø [mm]	Foul air trap	Material	Item number
	Adhesive bonding flange	75	Without FAT	1.4301	**408074**
				1.4404	**408174**
			With FAT	1.4301	**408075**
				1.4404	**408175**
	Mechanical clamping flange	75	Without FAT	1.4301	**408076**
				1.4404	**408176**
			With FAT	1.4301	**408077**
				1.4404	**408177**
	Location flange	110	Without FAT	1.4301	**408078**
				1.4404	**408178**
			With FAT	1.4301	**408079**
				1.4404	**408179**

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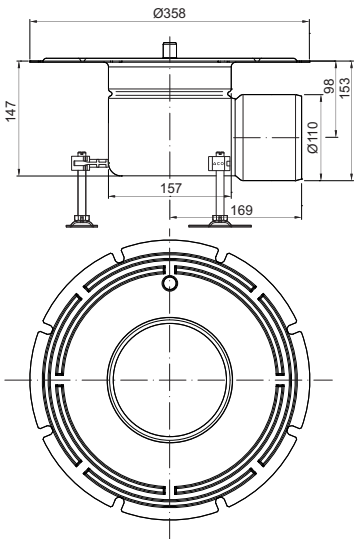
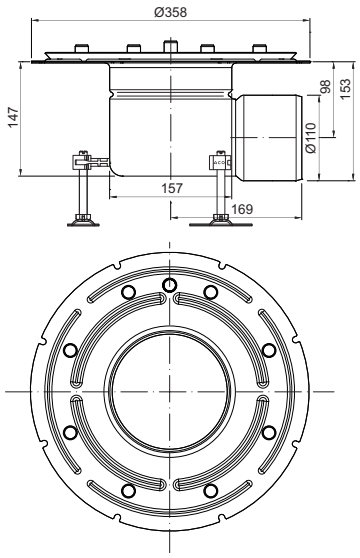
	Type of flange	Outlet diameter Ø [mm]	Foul air trap	Material	Item number
	Adhesive bonding flange	110	Without FAT	1.4301	**408080**
				1.4404	**408180**
			With FAT	1.4301	**408081**
				1.4404	**408181**
	Mechanical clamping flange	110	Without FAT	1.4301	**408082**
				1.4404	**408182**
			With FAT	1.4301	**408083**
				1.4404	**408183**

Accessories for ACO hygienic gully 157 ➔ Page 73

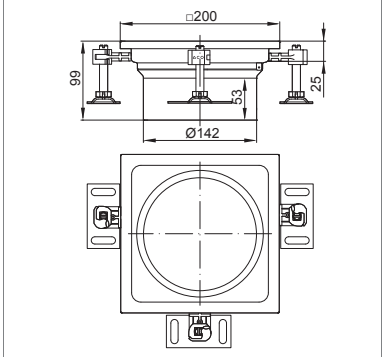
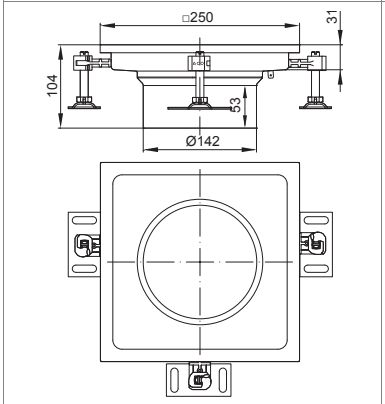
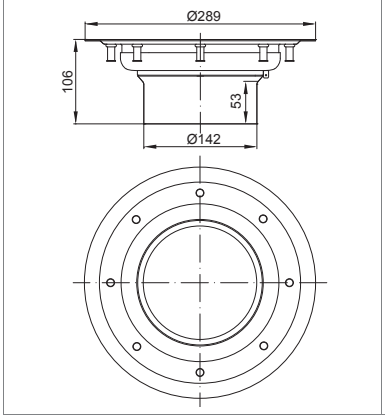
Gully top – telescopic

Product information

Gully top can be combined with telescopic gully. Different gully top type is available depending on floor structure.

- Hygienic design following EN 1672, EN ISO 14159 and EHEDG document No. 8, 13 and 44
- Square gully tops 200 x 200 or 250 x 250 for load class L 15; M 125 or C 250
- Available in grades 1.4301 (304) or 1.4401 (316L) of stainless steel
- Wide range of gratings to Load Class L 15 – M 125 (EN 1253) or C 250 (EN 124) including antislip solution

Order information

	Gully top type	Gully top size [mm]	Material	Item number
	Standard edge	□ 200 x 200	1.4301	**408208**
			1.4404	**408218**
	Standard edge	□ 250 x 250	1.4301	**408248**
			1.4404	**408258**
	Vinyl edge	Ø289	1.4301	**408240** *
			1.4404	**408250** *

* Hygienic design following EN 1672, EN ISO 14159 and EHEDG document No. 8, 13 and 44 not applied.

Gratings for gully top 200 x 200 mm ➔ Page 61
Gratings for gully top 250 x 250 mm ➔ Page 64
Gratings for vinyl top Ø222 mm ➔ Page 71
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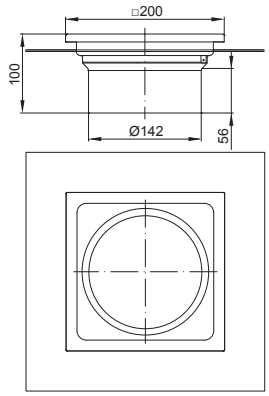
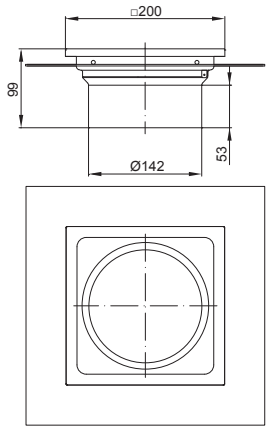
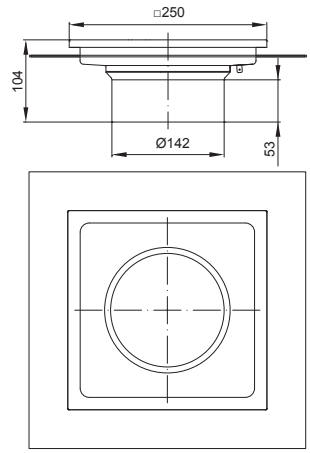
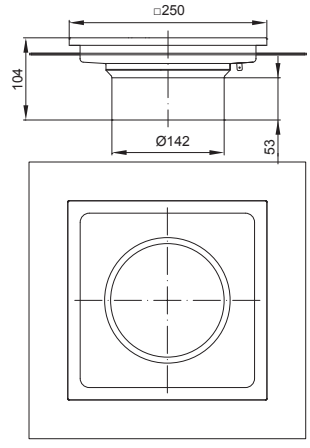
	Gully top type	Gully top size [mm]	Material	Item number
	Extended edge	□ 200 x 200	1.4301	**408241**
			1.4404	**408251**
	Extended edge with drainage holes	□ 200 x 200	1.4301	**408244**
			1.4404	**408254**
	Extended edge	□ 250 x 250	1.4301	**408245**
			1.4404	**408255**
	Extended edge with drainage holes	□ 250 x 250	1.4301	**408246**
			1.4404	**408256**

Gratings for gully top 200 x 200 mm ➔ Page 61
Gratings for gully top 250 x 250 mm ➔ Page 64
Accessories for ACO hygienic gully 157 ➔ Page 73

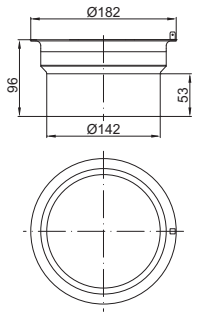
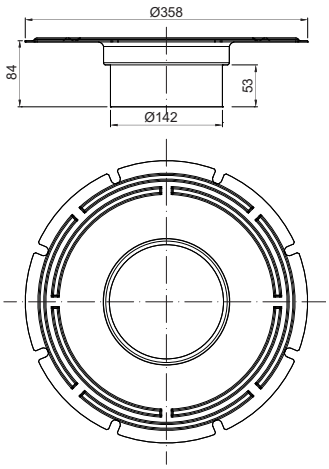
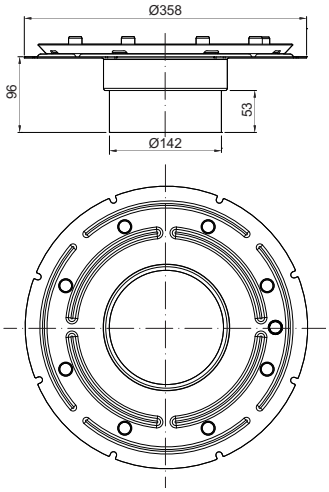
Raising piece – telescopic

Product information

Raising piece can be used for floor structures where multi waterproofing is needed (heat insulation) or where construction height of the slab needs to be increased.

- Variaty of flanges for membranes
- Available in grades 1.4301 (304) or 1.4404 (316L) of stainless steel

Order information

	Type of flange	Material	Item number
	Location flange	1.4301	**408249**
		1.4404	**408259**
	Adhesive bonding flange	1.4301	**408206**
		1.4404	**408216**
	Mechanical clamping flange	1.4301	**408207**
		1.4404	**408217**

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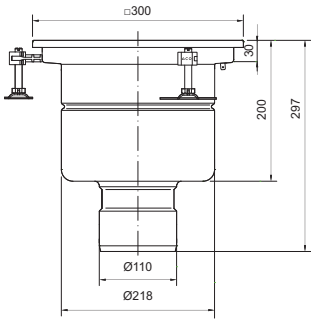
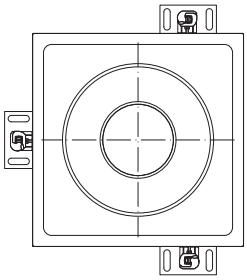
Fixed height – vertical outlet

Product information

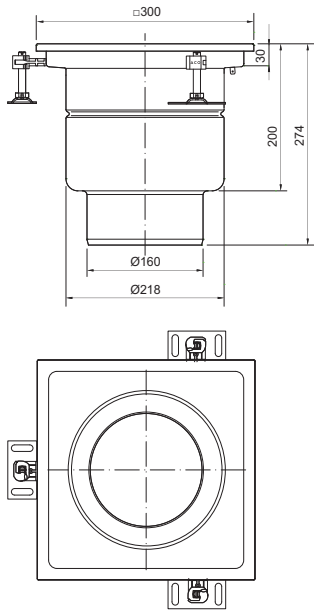
Fixed height gully can be specified as a point drainage in areas where waterproofing is independent of the gully body. Those gullies can be combined with different grates depending on requested load class.

- Hygienic design following EN 1672, EN ISO 14159 and EHEDG document No. 8, 13 and 44
- Tested and certified according to EN 1253
- Available in 1.4301 (304) or 1.4404 (316L) grades of stainless steel
- Gully top frame size: 300 x 300 mm
- Outlet diameter DN 100/DN 150 (110 mm or 160 mm OD)
- Fully removable stainless steel FAT
- Tested and certified according to EN 1253
- Fire tested and certified solution available for classes EI 90 – EI 180 (EN 13 501)
- Wide range of gratings to Load Class L 15 – M 125 (EN 1253) or C 250 (EN 124) including antislip solution

Order information

	Top size □ [mm]	Outlet diameter Ø [mm]	Foul air trap	Material	Item number
Standard edge					
 	300 x 300	110	Without FAT	1.4301	**408004**
				1.4404	**408104**
			With FAT	1.4301	**408005**
				1.4404	**408105**

Gratings for gully top 300 x 300 mm ➔ Page 67
Accessories for ACO hygienic gully 218 ➔ Page 74

	Top size □ [mm]	Outlet diameter Ø [mm]	Foul air trap	Material	Item number
	300 x 300	160	Without FAT	1.4301	**408006**
				1.4404	**408106**
			With FAT	1.4301	**408007**
				1.4404	**408107**

Gratings for gully top 300 x 300 mm ➔ Page 67
Accessories for ACO hygienic gully 218 ➔ Page 74

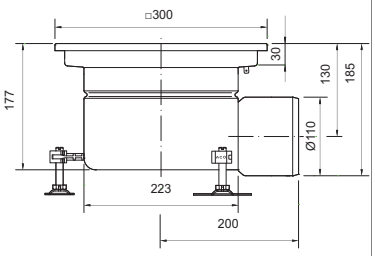
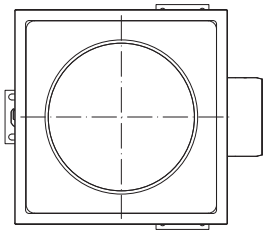
Fixed height – horizontal outlet

Product information

Fixed height gully can be specified as a point drainage in areas where waterproofing is independent of the gully body. Those gullies can be combined with different grates depending on requested load class.

- Hygienic design following EN 1672, EN ISO 14159 and EHEDG document No. 8, 13 and 44
- Stainless steel construction for durability and long life
- Wide range of gratings to load class L 15 – M 125 (EN 1253) or C 250 (EN 124)
- Available in 1.4301 (304) or 1.4404 (316L) grades of stainless steel
- Gully top frame size: 300 x 300 mm
- Outlet diameter DN 100 (110 mm OD)
- Tested and certified according to EN 1253
- Wide range of gratings to Load Class L 15 – M 125 (EN 1253) or C 250 (EN 124) including antislip solution

Order information

	Top size □ [mm]	Outlet diameter Ø [mm]	Foul air trap	Material	Item number
Standard edge					
 	300 x 300	110	Without FAT	1.4301	**408012**
				1.4404	**408112**
			With FAT	1.4301	**408013**
				1.4404	**408113**

Gratings for gully top 300 x 300 mm ➔ Page 67
Accessories for ACO hygienic gully 218 ➔ Page 74

Telescopic – vertical outlet

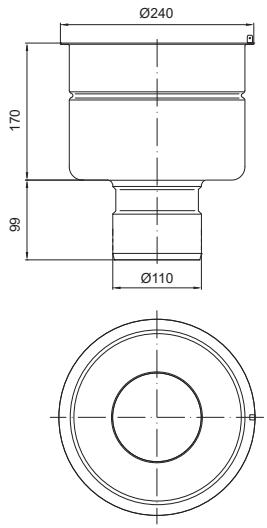
Product information

Telescopic gully can be combined either with ACO gully top or ACO channel in most flooring constructions.

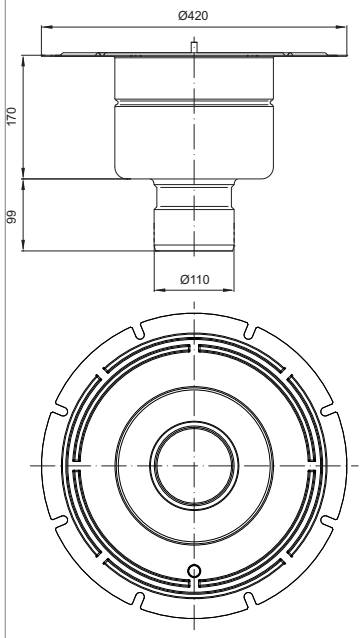
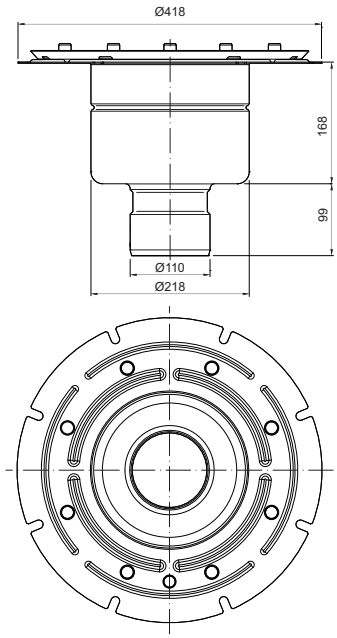
Telescopic solution enables height and rotational adjustment of connected gully top or channel. Gullies are equipped with flanges for connection of waterproof membrane.

- Hygienic design following EN 1672, EN ISO 14159 and EHEDG document No. 8, 13 and 44
- Fully removable stainless steel FAT
- Fire tested and certified solution available for classes EI 90 – EI 180 (EN 13 501)
- Available in 1.4301 (304) or 1.4404 (316L) grades of stainless steel
- Outlet diameter DN 100/DN 150 (110 mm or 160 mm OD)
- Gully body with location flange or integrated membrane flange for either adhesive bonding or mechanical clamp
- Telescopic friction ring included

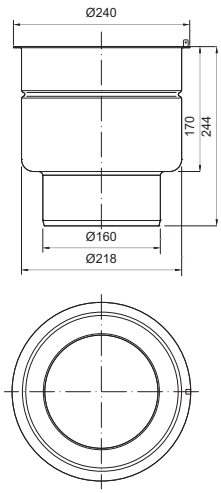
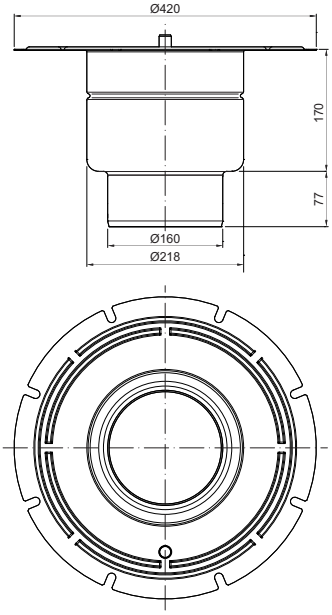
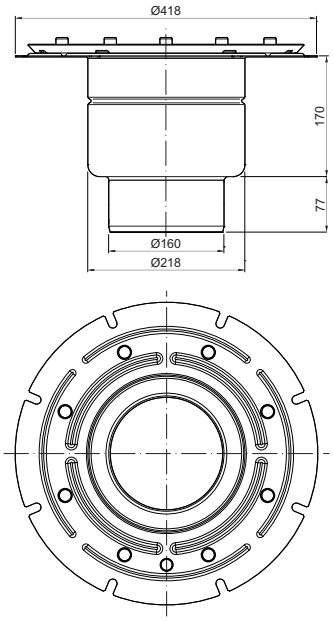
Order information

	Type of flange	Outlet diameter Ø [mm]	Foul air trap	Material	Item number
	Location flange	110	Without FAT	1.4301	**408060**
				1.4404	**408160**
			With FAT	1.4301	**408061**
				1.4404	**408161**

Accessories for ACO hygienic gully 218 → Page 74

	Type of flange	Outlet diameter Ø [mm]	Foul air trap	Material	Item number
	Adhesive bonding flange	110	Without FAT	1.4301	**408062**
				1.4404	**408162**
			With FAT	1.4301	**408063**
				1.4404	**408163**
	Mechanical clamping flange	110	Without FAT	1.4301	**408064**
				1.4404	**408164**
			With FAT	1.4301	**408065**
				1.4404	**408165**

Accessories for ACO hygienic gully 218 → Page 74

	Type of flange	Outlet diameter Ø [mm]	Foul air trap	Material	Item number
	Location flange	160	Without FAT	1.4301	**408066**
				1.4404	**408166**
			With FAT	1.4301	**408067**
				1.4404	**408167**
	Adhesive bonding flange	160	Without FAT	1.4301	**408068**
				1.4404	**408168**
			With FAT	1.4301	**408069**
				1.4404	**408169**
	Mechanical clamping flange	160	Without FAT	1.4301	**408070**
				1.4404	**408170**
			With FAT	1.4301	**408071**
				1.4404	**408171**

Accessories for ACO hygienic gully 218 → Page 74

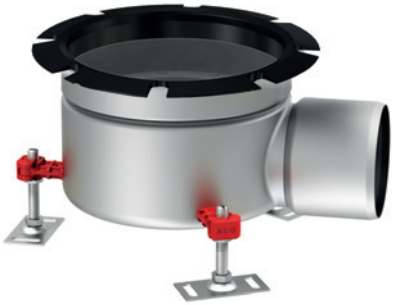
Telescopic – horizontal outlet

Product information

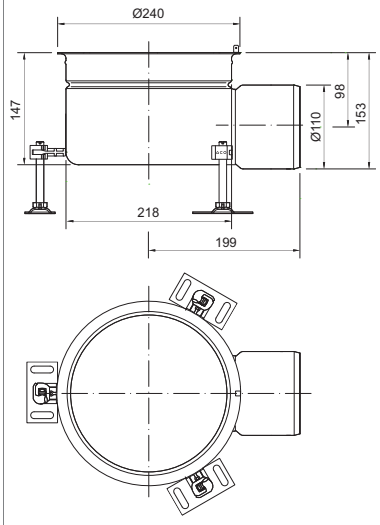
Telescopic gully can be combined either with gully top or ACO channel in most flooring constructions.

Telescopic solution enables height and rotational adjustment of connected gully top or channel. Gullies are equipped with flanges for connection of waterproof membrane.

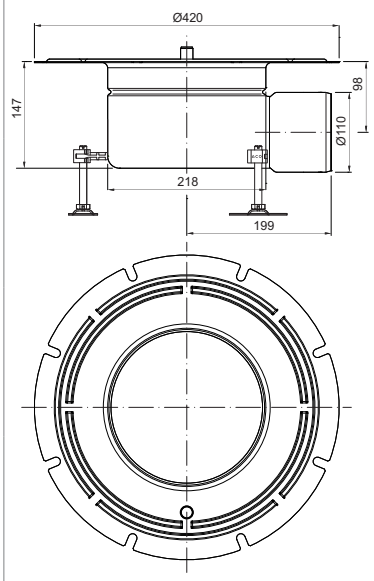
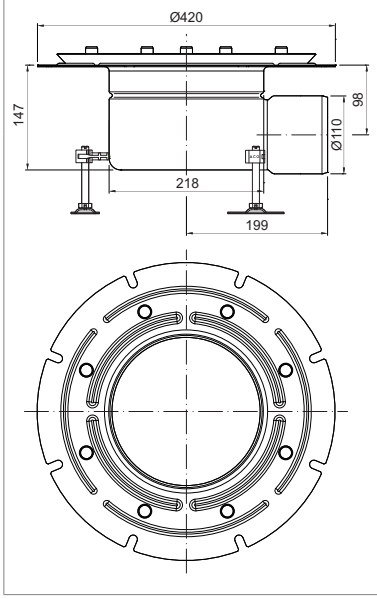
- Hygienic design following EN 1672, EN ISO 14159 and EHEDG document No. 8, 13 and 44
- Fully removable stainless steel FAT
- Available in 1.4301 (304) or 1.4404 (316L) grades of stainless steel
- Outlet diameter DN 100 (110 mm OD)
- Gully body with location flange or integrated membrane flange for either adhesive bonding or mechanical clamp
- Tested and certified according to EN 1253



Order information

	Type of flange	Outlet diameter Ø [mm]	Foul air trap	Material	Item number
	Location flange	110	Without FAT	1.4301	**408084**
				1.4404	**408184**
			With FAT	1.4301	**408085**
				1.4404	**408185**

Accessories for ACO hygienic gully 218 → Page 74

	Type of flange	Outlet diameter Ø [mm]	Foul air trap	Material	Item number
	Adhesive bonding flange	110	Without FAT	1.4301	**408086**
				1.4404	**408186**
			With FAT	1.4301	**408087**
				1.4404	**408187**
	Mechanical clamping flange	110	Without FAT	1.4301	**408088**
				1.4404	**408188**
			With FAT	1.4301	**408089**
				1.4404	**408189**

Accessories for ACO hygienic gully 218 → Page 74

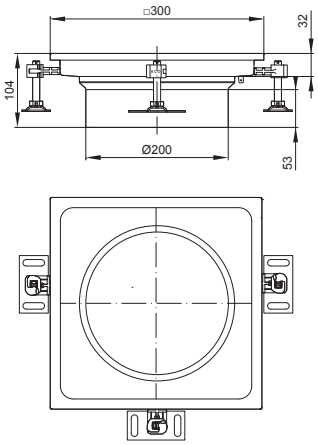
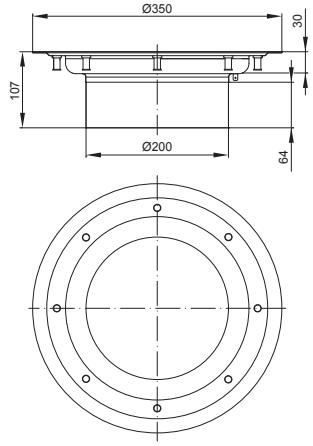
Gully top – telescopic

Product information

Gully top can be combined with telescopic gully. Different gully top type is available depending on floor structure.

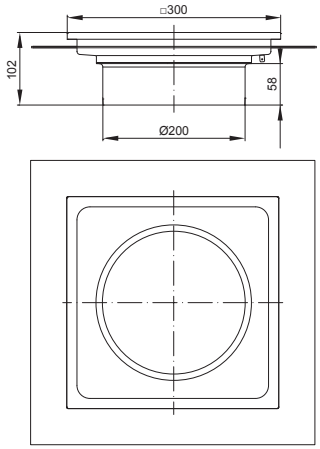
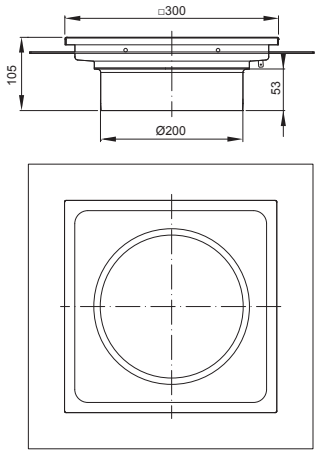
- Hygienic design following EN 1672 and EN ISO 14159 requirements
- Square gully tops 300 x 300 for load class L15; M 125 or C250
- Available in grades 1.4301 (304) or 1.4401 (316L) of stainless steel

Order information

	Gully Top type	Gully Top size Ø [mm]	Material	Item number
	Standard edge	300 x 300	1.4301	**408228**
			1.4404	**408238**
	Vinyl edge	Ø350	1.4301	**408242** *
			1.4404	**408252** *

* Hygienic design following EN 1672, EN ISO 14159 and EHEDG document No. 8, 13 and 44 not applied.

Gratings for gully top 300 x 300 mm ➔ Page 67
Gratings for vinyl top Ø222 mm ➔ Page 71
Accessories for ACO hygienic gully 218 ➔ Page 74

	Gully Top type	Gully Top size Ø [mm]	Material	Item number
	Extended edge	300 x 300	1.4301	**408243**
			1.4404	**408253**
	Extended edge with drainage holes	300 x 300	1.4301	**408247**
			1.4404	**408257**

Gratings for gully top 300 x 300 mm ➔ Page 67
Accessories for ACO hygienic gully 218 ➔ Page 74

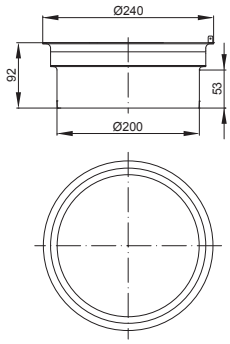
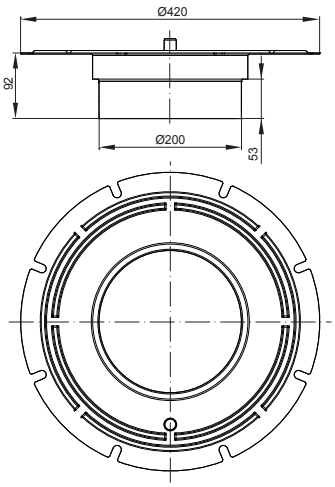
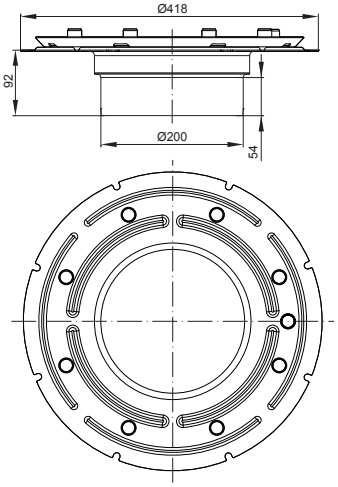
Raising piece – telescopic

Product information

Raising piece can be used for floor structures where multi waterproofing is needed (heat insulation) or where construction height of the slab needs to be increased.

- Variaty of flanges for membranes
- Available in grades 1.4301 (304) or 1.4404 (316L) of stainless steel

Order information

	Type of flange	Material	Item number
	Location flange	1.4301	**408209**
		1.4404	**408219**
	Adhesive bonding flange	1.4301	**408226**
		1.4404	**408236**
	Mechanical clamping flange	1.4301	**408227**
		1.4404	**408237**

Accessories for ACO hygienic gully 218 → Page 74

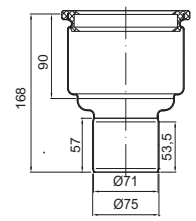
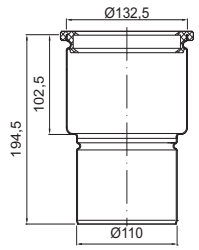
Telescopic – vertical outlet

Product information

ACO gully EG150 can be combined with ACO channel with outlet diameter 110 mm. Faul air trap needs to be ordered separately.

- Stainless steel construction for durability and long life

Order information

	FAT	Material	Item number
	Without FAT	1.4301	* **405066**
		1.4404	* **402663**
	Without FAT	1.4301	* **408805**
		1.4404	* **405312**

* Hygienic design following EN 1672, EN ISO 14159 and EHEDG document No. 8, 13 and 44 not applied.

Accessories for ACO gully EG150 → Page 75

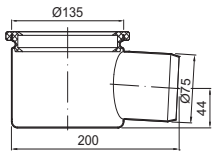
Telescopic – horizontal outlet

Product information

ACO gully EG150 can be combined with ACO channel with outlet diameter 110 mm. Faul air trap needs to be ordered separately.

- Stainless steel construction for durability and long life

Order information

	FAT	Material	Item number
	Without FAT	1.4301	406677 *
		1.4404	405311 *

* Hygienic design following EN 1672, EN ISO 14159 and EHEDG document No. 8, 13 and 44 not applied.

Accessories for ACO gully EG150 → Page 75

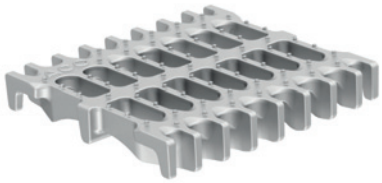
Gratings for gully top 200 x 200 mm

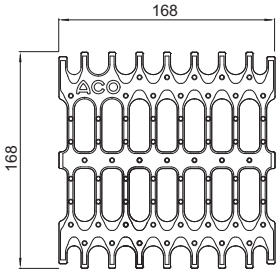
Product information

Variety of grate types is available depending on application and requested load class. For applications with high hygienic demands ladder grate or cast grate should be selected.

- Hygienic design following EN 1672, EN ISO 14159 and EHEDG document No. 8, 13 and 44
- Fits to stainless steel gully, fully compliant to EN 1253
- Available in 1.4301 (304) or 1.4404 (316L) grades of stainless steel
- Gully top frame size: 200 x 200 mm
- Gratings suitable to load class R50 (5 000 kg) - M125 (EN 1253) or N250 (EN 124) including antislip

ACO hygienic cast grating

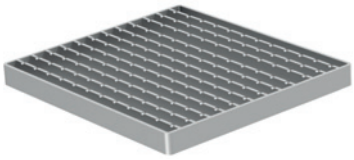


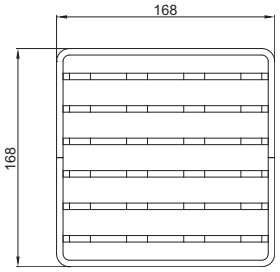


Load class	Slip resistant	Material	Item number
M 125	Yes	1.4301	**416942**

Note: Surface electropolished

ACO hygienic ladder grating



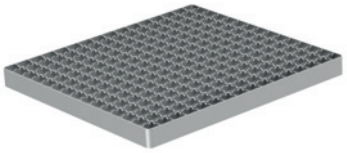


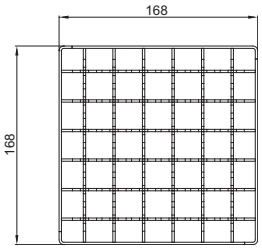
Load class	Slip resistant	Material	Item number
R 50	Yes	1.4301	**416912**
		1.4404	**416913**
M 125	Yes	1.4301	**408093**
		1.4404	**408193**
C 250	No	1.4301	**408043**
		1.4404	**408143**

Note: Surface electropolished

ACO hygienic gully 142 - fixed height → Page 20
ACO hygienic gully 157 - fixed height → Page 34
Gully top - telescopic → Page 30
Gully top - telescopic → Page 45

ACO mesh grating

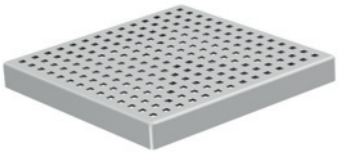


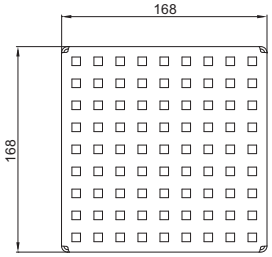


Load class	Slip resistant	Material	Item number
L 15	Yes	1.4301	408090 *
		1.4404	408190 *
	No	1.4301	408091 *
		1.4404	408191 *

Note: Surface electropolished

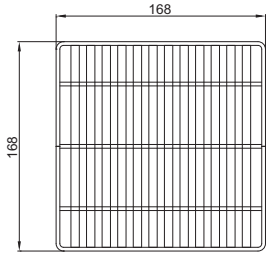
ACO quadrato grating





Load class	Slip resistant	Material	Item number
L 15	No	1.4301	408092 *
		1.4404	408192 *

ACO heelsafe grating

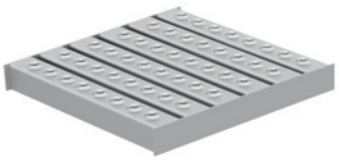


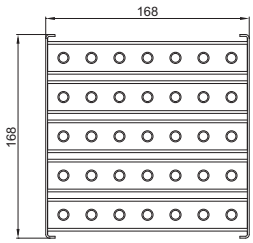
Load class	Slip resistant	Material	Item number
L 15	No	1.4301	408022 *
		1.4404	408122 *

* Hygienic design following EN 1672, EN ISO 14159 and EHEDG document No. 8, 13 and 44 not applied.

ACO hygienic gully 142 - fixed height ➔ Page 20
ACO hygienic gully 157 - fixed height ➔ Page 34
Gully top - telescopic ➔ Page 30
Gully top - telescopic ➔ Page 45

ACO multi-slot 5 grating

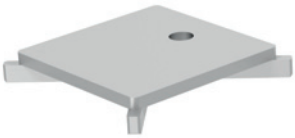


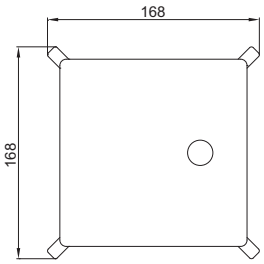


Load class	Slip resistant	Material	Item number
L 15	Yes	1.4301	408094 *
		1.4404	408194 *

Note: Surface electropolished

ACO slot cover



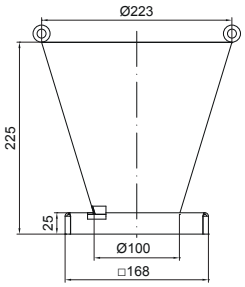


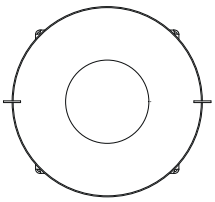
Load class	Slip resistant	Material	Item number
M 125	No	1.4301	408021 *
		1.4404	408121 *

ACO odour proof cover

For ACO odour proof cover, please contact our Sales/Technical department.

ACO tundish for gully top





Description	Material	Item number
ACO tundish for gully top 200 x 200	1.4301	415918

* Hygienic design following EN 1672, EN ISO 14159 and EHEDG document No. 8, 13 and 44 not applied.

ACO hygienic gully 142 - fixed height ➔ Page 20
ACO hygienic gully 157 - fixed height ➔ Page 34
Gully top - telescopic ➔ Page 30
Gully top - telescopic ➔ Page 45

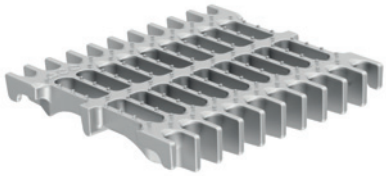
Gratings for gully top 250 x 250 mm

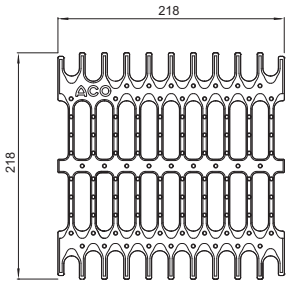
Product information

Variety of grate types is available depending on application and requested load class. For applications with high hygienic demands ladder grate or cast grate should be selected.

- Hygienic design following EN 1672, EN ISO 14159 and EHEDG document No. 8, 13 and 44
- Fits to stainless steel gully, fully compliant to EN 1253
- Available in 1.4301 (304) or 1.4404 (316L) grades of stainless steel
- Gully top frame size: 250 x 250 mm
- Gratings suitable to load class R50 (5 000 kg) - M125 (EN 1253) or N250 (EN 124) including antislip

ACO hygienic cast grating

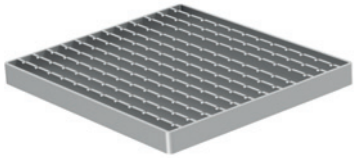


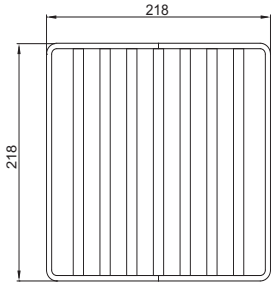


Load class	Slip resistant	Material	Item number
M 125	Yes	1.4301	**416943**

Note: Surface electropolished

ACO hygienic ladder grating





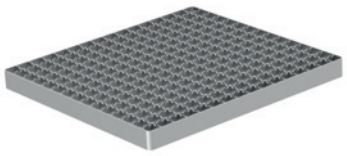
Load class	Slip resistant	Material	Item number
R 50	Yes	1.4301	**416914**
		1.4404	**416915**
M 125	Yes	1.4301	**408028**
		1.4404	**408128**
C 250	No	1.4301	**408044** *
		1.4404	**408144** *

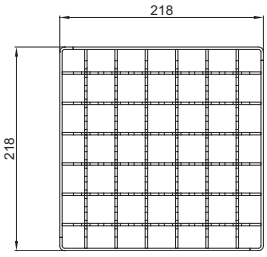
Note: Surface electropolished

* Hygienic design following EN 1672, EN ISO 14159 and EHEDG document No. 8, 13 and 44 not applied.

ACO hygienic gully 157 - fixed height ➔ Page 34
Gully top - telescopic ➔ Page 45

ACO mesh grating

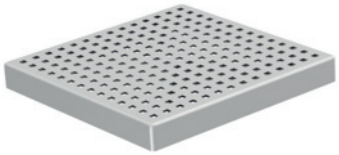


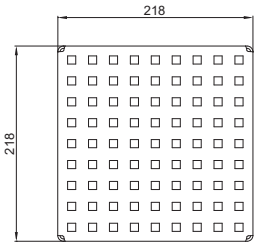


Load class	Slip resistant	Material	Item number
L 15	Yes	1.4301	408095 *
		1.4404	408195 *
	No	1.4301	408096 *
		1.4404	408196 *

Note: Surface electropolished

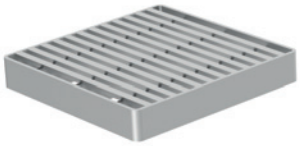
ACO quadrato grating

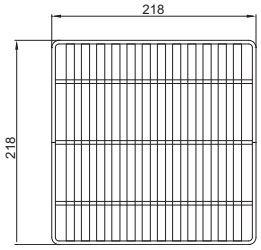




Load class	Slip resistant	Material	Item number
L 15	No	1.4301	408097 *
		1.4404	408197 *

ACO heelsafe grating





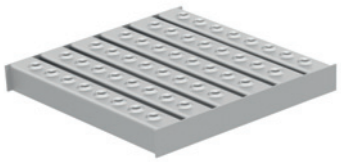
Load class	Slip resistant	Material	Item number
L 15	No	1.4301	408031 *
		1.4404	408131 *

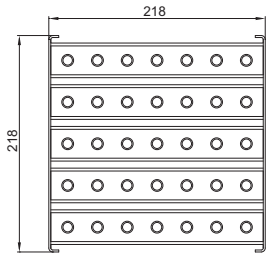
* Hygienic design following EN 1672, EN ISO 14159 and EHEDG document No. 8, 13 and 44 not applied.

ACO hygienic gully 157 - fixed height ➔ Page 34
Gully top - telescopic ➔ Page 45

Gratings for gully top 250 x 250 mm

ACO multi-slot 5 grating

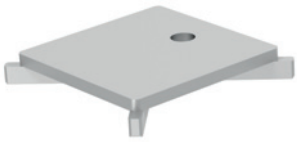


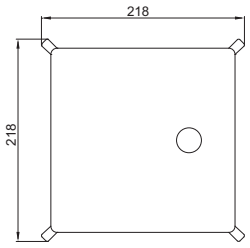


Load class	Slip resistant	Material	Item number
L 15	Yes	1.4301	408033 *
		1.4404	408133 *

Note: Surface electropolished

ACO slot cover



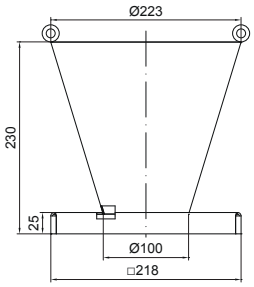


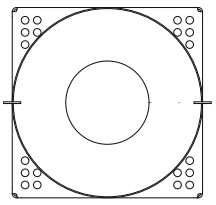
Load class	Slip resistant	Material	Item number
M 125	No	1.4301	408030 *
		1.4404	408130 *

ACO odour proof cover

For ACO odour proof cover, please contact our Sales/Technical department.

ACO tundish for gully top





Description	Material	Item number
ACO tundish for gully top 250 x 250	1.4301	413546

* Hygienic design following EN 1672, EN ISO 14159 and EHEDG document No. 8, 13 and 44 not applied.

ACO hygienic gully 157 - fixed height ➔ Page 34
Gully top - telescopic ➔ Page 45

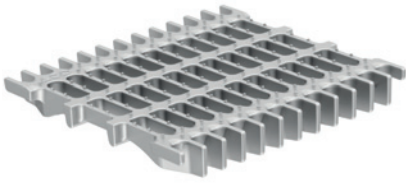
Gratings for gully top 300 x 300 mm

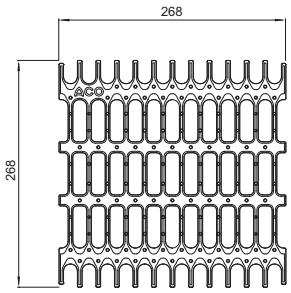
Product information

Variety of grate types is available depending on application and requested load class. For applications with high hygienic demands ladder grate or cast grate should be selected.

- Hygienic design following EN 1672, EN ISO 14159 and EHEDG document No. 8, 13 and 44
- Antislip solution available
- Fits to stainless steel gully, fully compliant to EN 1253
- Available in 1.4301 (304) or 1.4404 (316L) grades of stainless steel
- Gully top frame size: 300 x 300 mm
- Gratings suitable to load class L15, R50 (5 000 kg), M125 (EN 1253) or N250 (EN 124) including antislip

ACO hygienic cast grating

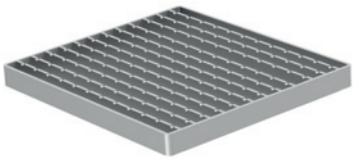


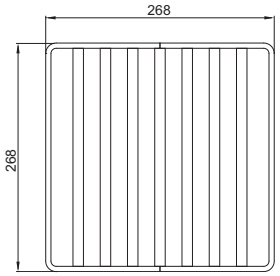


Load class	Slip resistant	Material	Item number
M 125	Yes	1.4301	**416944**

Note: Surface electropolished

ACO hygienic ladder grating



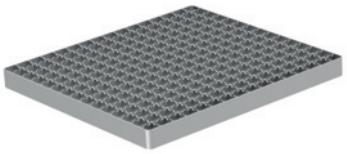


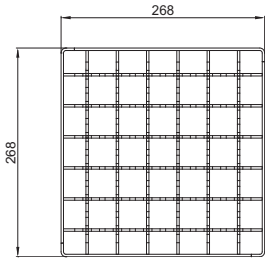
Load class	Slip resistant	Material	Item number
R 50	Yes	1.4301	**416916**
		1.4404	**416917**
M 125	Yes	1.4301	**408037**
		1.4404	**408137**
C 250	No	1.4301	**408045**
		1.4404	**408145**

Note: Surface electropolished

Gratings for gully top 300 x 300 mm

ACO mesh grating

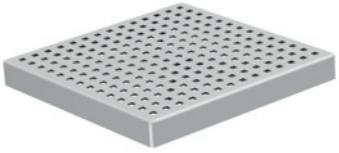


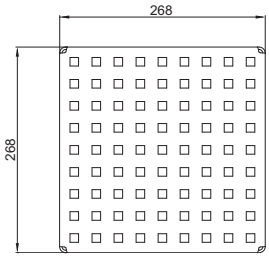


Load class	Slip resistant	Material	Item number
L 15	Yes	1.4301	408034
		1.4404	408134
	No	1.4301	408035 *
		1.4404	408135 *

Note: Surface electropolished

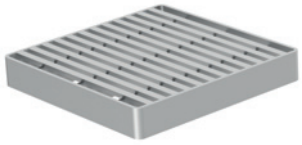
ACO quadrato grating

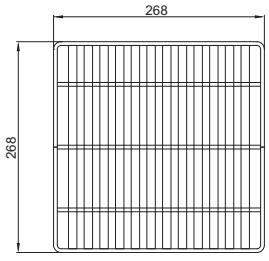




Load class	Slip resistant	Material	Item number
L 15	No	1.4301	408036 *
		1.4404	408136 *

ACO heelsafe grating



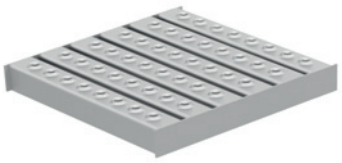


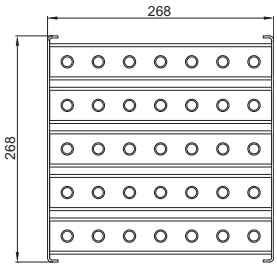
Load class	Slip resistant	Material	Item number
L 15	No	1.4301	408040 *
		1.4404	408140 *

* Hygienic design following EN 1672, EN ISO 14159 and EHEDG document No. 8, 13 and 44 not applied.

ACO hygienic gully 218 - fixed height ➔ Page 48
Gully top - telescopic ➔ Page 56

ACO multi-slot 5 grating

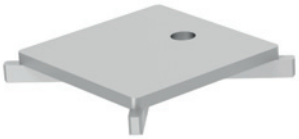


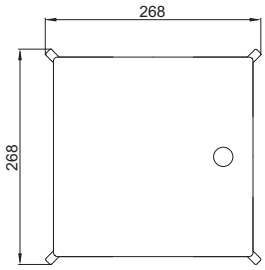


Load class	Slip resistant	Material	Item number
L 15	Yes	1.4301	408042 *
		1.4404	408142 *

Note: Surface electropolished

ACO slot cover



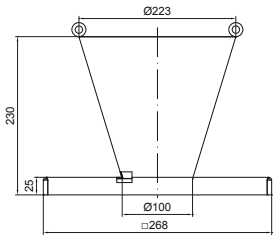


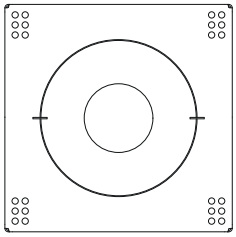
Load class	Slip resistant	Material	Item number
M 125	No	1.4301	408039 *
		1.4404	408139 *

ACO odour proof cover

For ACO odour proof cover, please contact our Sales/Technical department.

ACO tundish for gully top





Description	Material	Item number
ACO tundish for gully top 300 x 300	1.4301	413547

* Hygienic design following EN 1672, EN ISO 14159 and EHEDG document No. 8, 13 and 44 not applied.

ACO hygienic gully 218 - fixed height ➔ Page 48
Gully top - telescopic ➔ Page 56

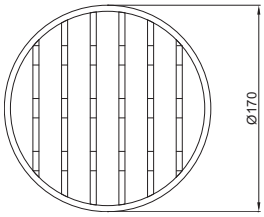
Gratings for vinyl top Ø170

Product information

Variety of grate types is available depending on application and requested load class. For applications with high hygienic demands ladder grate or cast grate should be selected.

- Hygienic design
- Stainless steel construction for durability and long life
- Fits to stainless steel gully, fully compliant to EN 1253
- Available in 1.4301 (304) or 1.4404 (316L) grades of stainless steel
- For load class L 15
- Tested and certified according to EN 1253

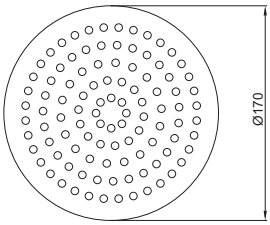
ACO ladder grating



Load class	Slip resistant	Material	Item number
L 15	Yes	1.4301	**97146**
		1.4404	**97367**

Note: Surface electropolished

ACO perforated grating



Load class	Slip resistant	Material	Item number
L 15	No	1.4301	**97152** *
		1.4404	**97369** *

* Hygienic design following EN 1672, EN ISO 14159 and EHEDG document No. 8, 13 and 44 not applied.

ACO odour proof cover

For ACO odour proof cover, please contact our Sales/Technical department.

Gully top → Page 45

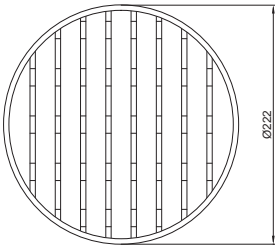
Gratings for vinyl top Ø222

Product information

Variety of grate types is available depending on application and requested load class. For applications with high hygienic demands ladder grate or cast grate should be selected.

- Hygienic design
- Stainless steel construction for durability and long life
- Fits to stainless steel gully, fully compliant to EN 1253
- Available in 1.4301 (304) or 1.4404 (316L) grades of stainless steel
- For load class L 15
- Tested and certified according to EN 1253

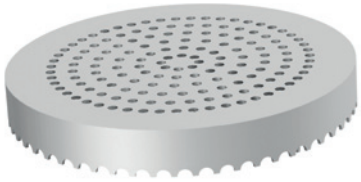
ACO ladder grating

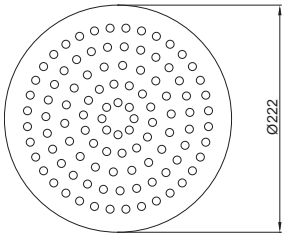


Load class	Slip resistant	Material	Item number
L 15	Yes	1.4301	97148
		1.4404	97388

Note: Surface electropolished

ACO perforated grating





Load class	Slip resistant	Material	Item number
L 15	No	1.4301	97153 *
		1.4404	97390 *

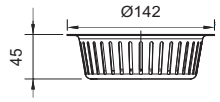
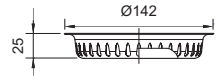
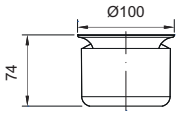
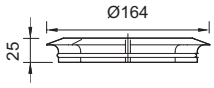
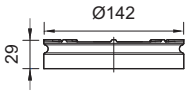
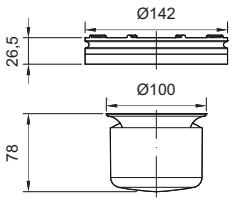
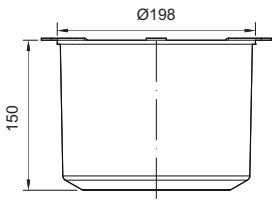
* Hygienic design following EN 1672, EN ISO 14159 and EHEDG document No. 8, 13 and 44 not applied.

ACO odour proof cover

For ACO odour proof cover, please contact our Sales/Technical department.

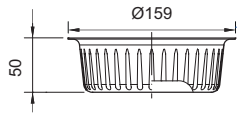
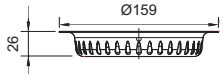
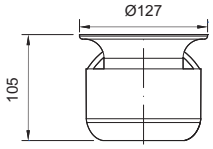
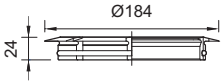
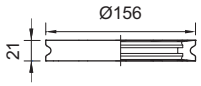
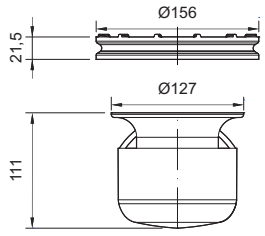
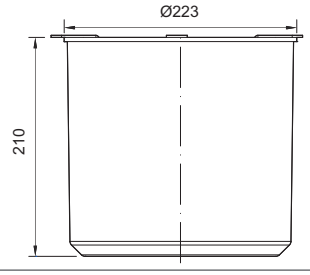
Gully top → Page 56

Accessories for ACO hygienic gully 142

	Description	Used with	Material	Item number
	Silt basket ■ Stainless steel ■ 0,4 litre capacity	■ ACO hygienic gully 142 - Telescopic ☐ Vertical or horizontal	1.4301	**416900**
			1.4404	**416901**
	Silt basket ■ Stainless steel ■ 0,3 litre capacity	■ ACO hygienic gully 142 - Fixed height ☐ Vertical or horizontal	1.4301	**416902**
			1.4404	**416903**
	Hygienic foul air trap ■ Stainless steel ■ Water seal 50 mml	■ ACO hygienic gully 142 ☐ Fixed height ☐ Telescopic	1.4301	**414741**
			1.4404	**414841**
	Friction ring ■ NBR (Acryl nitrile-butadiene)	■ ACO hygienic gully 142 ☐ Telescopic	NBR	**414742**
	Standard foul air trap support ■ NBR (Acryl nitrile-butadiene)	■ ACO hygienic gully 142 ☐ Fixed height ☐ Telescopic	NBR	**414743**
	ACO fire resistant kit for gully 142/D75 ☐ Fixed Height, vertical ☐ Telescopic, vertical	■ ACO hygienic gully 142 ☐ Fixed Height, vertical ☐ Telescopic, vertical		**416930**
	ACO fire resistant kit for gully 142/DN 100 ☐ Fixed Height, vertical ☐ Telescopic, vertical	■ ACO hygienic gully 142 ☐ Fixed Height, vertical ☐ Telescopic, vertical		**416931**

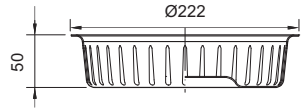
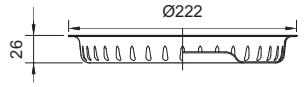
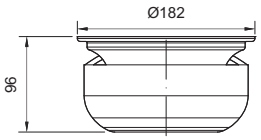
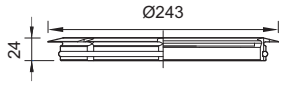
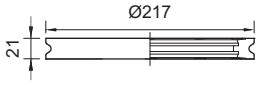
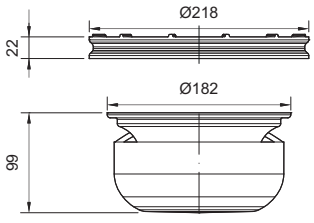
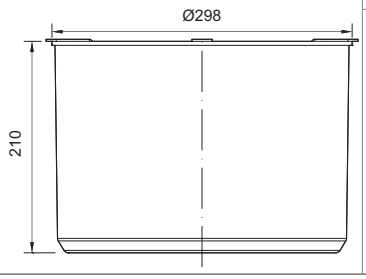
ACO hygienic gully 142 → Page 20

Accessories for ACO hygienic gully 157

	Description	Used with	Material	Item number
	Silt basket ■ Stainless steel ■ 0,6 litre capacity	■ ACO hygienic gully 157 - Vertical ☐ Fixed height or Telescopic	1.4301	**416904**
			1.4404	**416905**
	Silt basket ■ Stainless steel ■ 0,3 litre capacity	■ ACO hygienic gully 157 - Horizontal ☐ Fixed height or Telescopic	1.4301	**416906**
			1.4404	**416907**
	Hygienic foul air trap ■ Stainless steel ■ Water seal 50 mm	■ ACO hygienic gully 157 ☐ Telescopic	1.4301	**408200**
			1.4404	**408210**
	Friction ring ■ NBR (Acryl nitrile-butadiene)	■ ACO hygienic gully 157 ☐ Fixed height ☐ Telescopic	NBR	**408205**
	Standard foul air trap support ■ NBR (Acryl nitrile-butadiene)	■ ACO hygienic gully 157 ☐ Fixed height ☐ Telescopic	NBR	**408201**
	ACO fire resistant kit for gully 157/D75 ☐ Fixed Height, vertical ☐ Telescopic, vertical	■ ACO hygienic gully 157 ☐ Fixed Height, vertical ☐ Telescopic, vertical		**416932**
	ACO fire resistant kit for gully 157/DN 100 ☐ Fixed Height, vertical ☐ Telescopic, vertical	■ ACO hygienic gully 157 ☐ Fixed Height, vertical ☐ Telescopic, vertical		**416933**

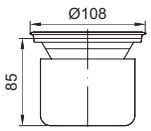
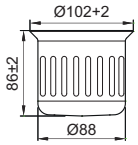
ACO hygienic gully 157 ➔ Page 34

Accessories for ACO hygienic gully 218

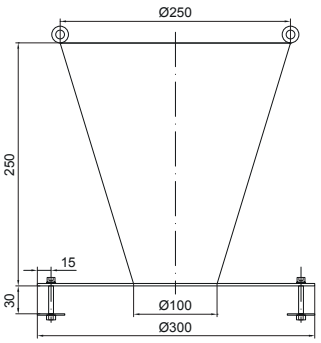
	Description	Used with	Material	Item number
	Silt basket ■ Stainless steel ■ 1,4 litre capacity	■ ACO hygienic gully 218 - Vertical ☐ Fixed height or Telescopic	1.4301	**416908**
			1.4404	**416909**
	Silt basket ■ Stainless steel ■ 0,7 litre capacity	■ ACO hygienic gully 218 - Horizontal ☐ Fixed height or Telescopic	1.4301	**416910**
			1.4404	**416911**
	Hygienic foul air trap ■ Stainless steel ■ Water seal 50 mm	■ ACO hygienic gully 218 ☐ Fixed height ☐ Telescopic	1.4301	**408220**
			1.4404	**408230**
	Friction ring ■ NBR (Acryl nitrile-butadiene)	■ ACO hygienic gully 218 ☐ Telescopic	NBR	**408225**
	Standard foul air trap support ■ NBR (Acryl nitrile-butadiene)	■ ACO hygienic gully 218 ☐ Fixed height ☐ Telescopic	NBR	**408221**
	ACO fire resistant kit for gully 218/D110 ☐ Fixed Height, vertical ☐ Telescopic, vertical	■ ACO hygienic gully 218 ☐ Fixed Height, vertical ☐ Telescopic, vertical		**416934**
	ACO fire resistant kit for gully 218/DN160 ☐ Fixed Height, vertical ☐ Telescopic, vertical	■ ACO hygienic gully 218 ☐ Fixed Height, vertical ☐ Telescopic, vertical		**416935**

ACO hygienic gully 218 → Page 48

Accessories for ACO gully EG150

	Description	Used with	Material	Item number
	Sieve (for outlet 110 mm) ■ Stainless steel	■ ACO slot channel 20 ■ ACO modular box channel 125 ■ ACO modular box channel 200 ■ ACO modular slot channel 20	1.4301	**97235**
			1.4404	**97285**
	Foul air trap ■ Stainless steel ■ Water seal 50 mm	■ ACO slot channel 20 ■ ACO modular box channel 125 ■ ACO modular box channel 200 ■ ACO modular slot channel 20	1.4301	**97217**
			1.4404	**97267**
	Silt basket ■ Stainless steel	■ ACO slot channel 20 ■ ACO modular box channel 125 ■ ACO modular box channel 200 ■ ACO modular slot channel 20 ■ **Don't combine with FAT** ■ Suitable with P-Trap (ACO pipe chapter)	1.4301	**409189**
			1.4404	**409190**

ACO tundish portable

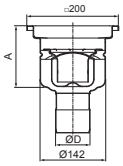
		Description	Material	Item number
		ACO tundish portable ■ Stainless steel	1.4301	**415821**

ACO gully EG150 → Page 59

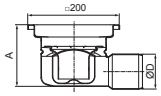
Flow rates and Construction heights

Flow rates and Construction heights

ACO hygienic gully 142 – fixed height

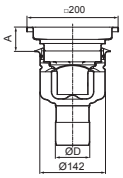


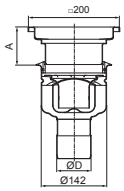
Outlet diameter	Outlet position	Flow rate [l/s]
ØD		A = 135 [mm]
75	Vertical	1.4
110		1.6

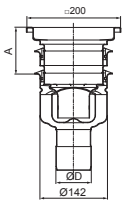


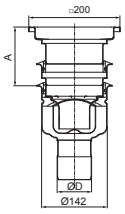
Outlet diameter	Outlet position	Flow rate [l/s]
ØD		A = 135 [mm]
75	Horizontal	1.4
110		1.6

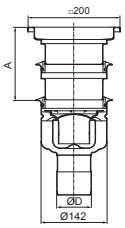
ACO hygienic gully 142 – telescopic



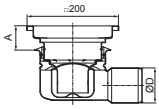


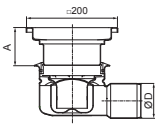


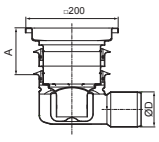


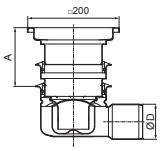


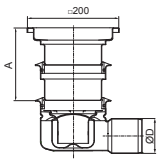
Outlet diameter	Outlet position	Flow rate [l/s]				
ØD		A = 52 [mm]	A = 82 [mm]	A = 97 [mm]	A = 127 [mm]	A = 157 [mm]
75	Vertical	1.4	1.6	1.6	1.7	1.8
110		1.6	1.8	1.8	1.9	2.0







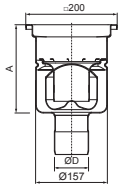




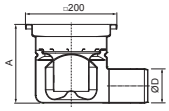
Outlet diameter	Outlet position	Flow rate [l/s]				
ØD		A = 52 [mm]	A = 82 [mm]	A = 97 [mm]	A = 127 [mm]	A = 157 [mm]
75	Horizontal	1.4	1.6	1.6	1.7	1.8
110		1.6	1.8	1.8	1.9	2.0

Flow rates and Construction heights

ACO hygienic gully 157 – fixed height

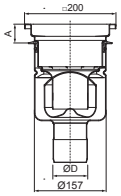


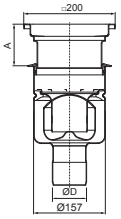
Outlet diameter	Outlet position	Flow rate [l/s]
ØD		A = 193 [mm]
75	Vertical	2.7
110		3.5

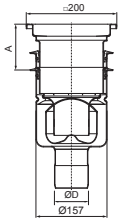


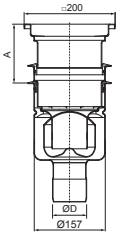
Outlet diameter	Outlet position	Flow rate [l/s]
ØD		A = 170 [mm]
75	Horizontal	2.6
110		2.8

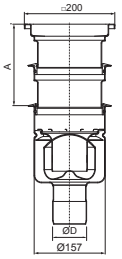
ACO hygienic gully 157 – telescopic



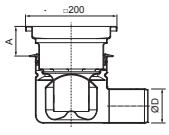


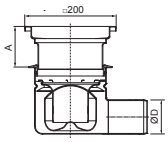


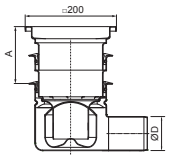


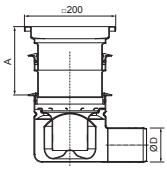


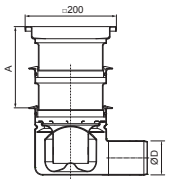
Outlet diameter	Outlet position	Flow rate [l/s]				
ØD		A = 65 [mm]	A = 91 [mm]	A = 125 [mm]	A = 153 [mm]	A = 180 [mm]
75	Vertical	2.7	3.0	3.0	3.1	3.3
110		3.5	4.0	4.1	4.2	4.4







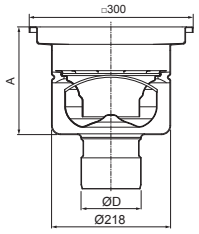




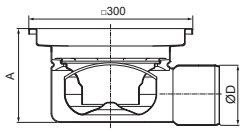
Outlet diameter	Outlet position	Flow rate [l/s]				
ØD		A = 52 [mm]	A = 82 [mm]	A = 97 [mm]	A = 127 [mm]	A = 157 [mm]
75	Horizontal	2.6	2.9	3.0	3.1	3.3
110		2.8	3.3	3.6	4.0	4.4

Flow rates and Construction heights

ACO hygienic gully 218 – fixed height

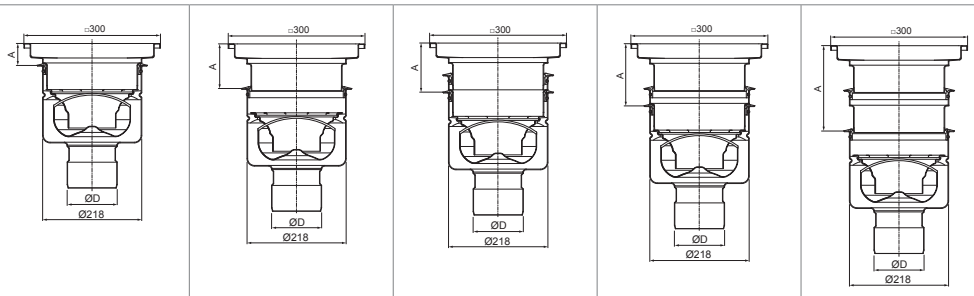


Outlet diameter	Outlet position	Flow rate [l/s]
ØD		A = 200 [mm]
110	Vertical	5.0
160		5.0

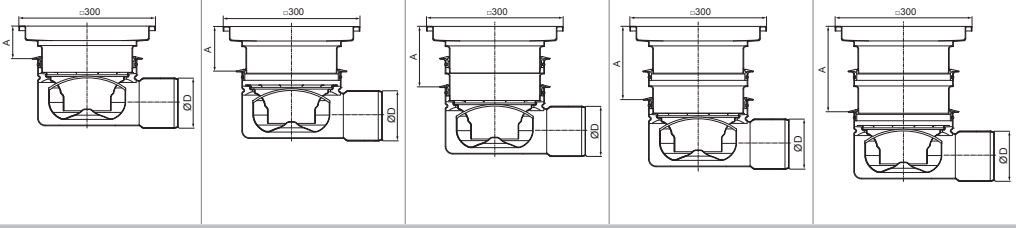


Outlet diameter	Outlet position	Flow rate [l/s]
ØD		A = 177 [mm]
110	Horizontal	4.4

ACO hygienic gully 218 – telescopic



Outlet diameter	Outlet position	Flow rate [l/s]				
ØD		A = 65 [mm]	A = 91 [mm]	A = 125 [mm]	A = 153 [mm]	A = 180 [mm]
110	Vertical	5.0	5.5	5.6	5.8	6.2
160		5.0	5.5	5.6	5.8	6.2



Outlet diameter	Outlet position	Flow rate [l/s]				
ØD		A = 72 [mm]	A = 98 [mm]	A = 132 [mm]	A = 156 [mm]	A = 187 [mm]
110	Horizontal	4.4	4.6	4.8	4.9	5.4

Flow rates and Construction heights

Hygienic design

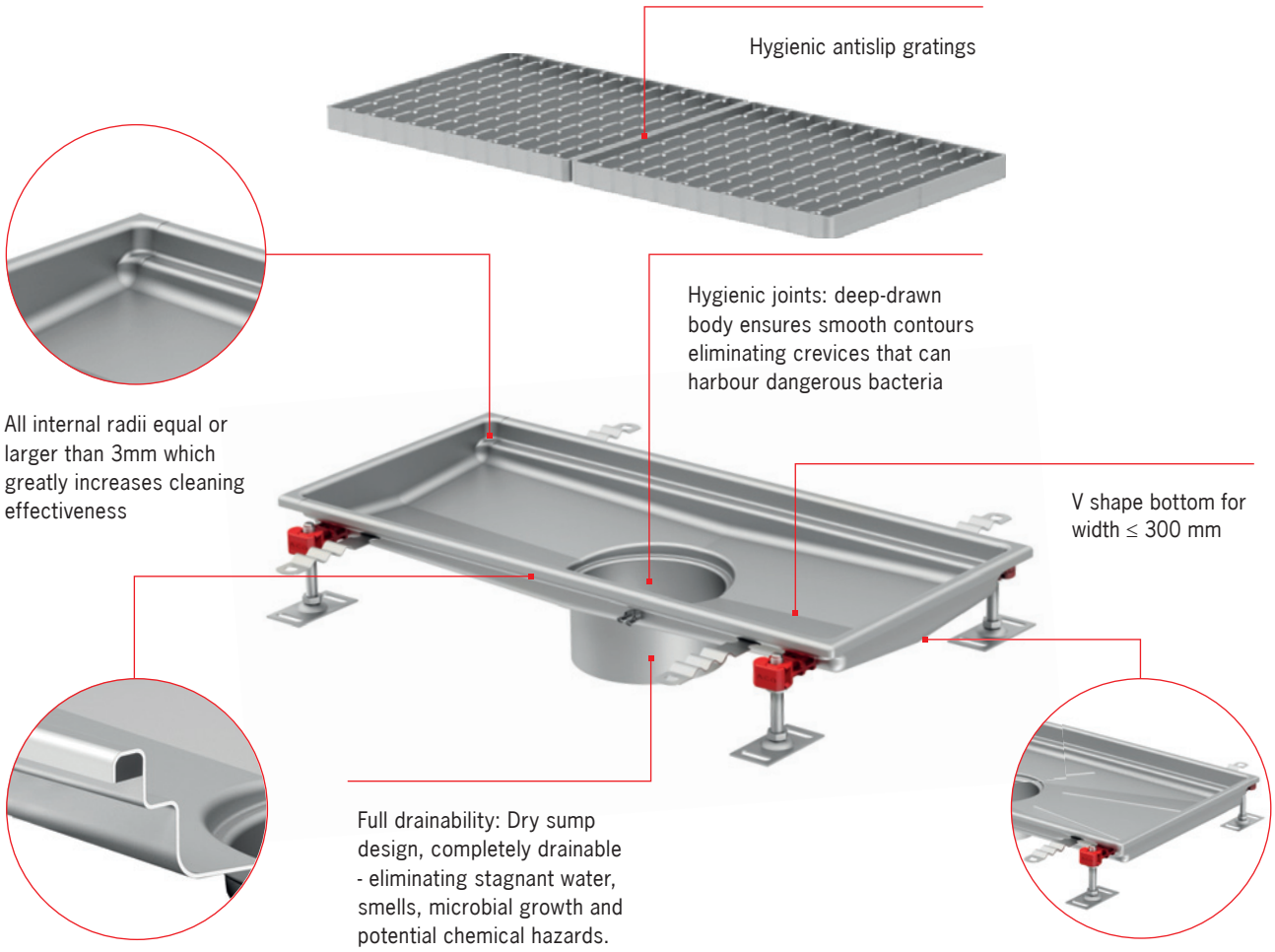
ACO offers sustainable, integrated drainage systems which are designed to protect your business, the environment and ultimately public health. Our aim is to constantly improve every aspect of safety, hygiene and functional performance.

We believe that our systems and services are truly unique, delivering unparalleled benefits to everyone involved in project delivery or subsequent operation.

ACO hygienic drainage fulfills stringent hygienic requirements to prevent harmful bacterial contamination. We apply the relevant hygienic design principles reserved for food contact surfaces EN 1672, EN ISO 14159 and EHEDG document to the channel design.

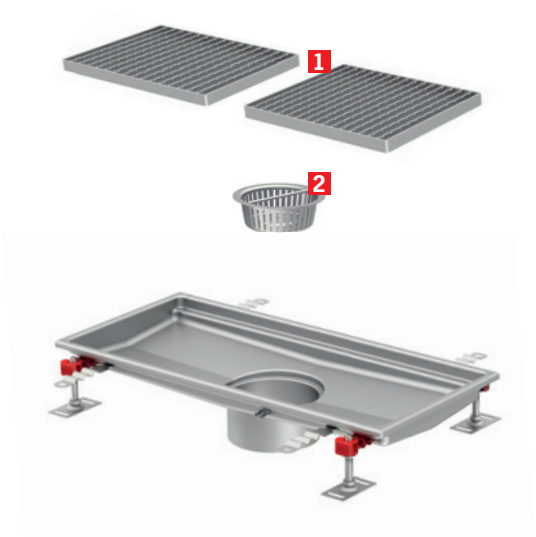
ACO channel hygienic features:

- Fully drainable
- Internal radii equal or larger than 3 mm
- Hygienic joints
- Edge infill
- Stainless steel grade min. AISI 304
- Fully pickled and passivated



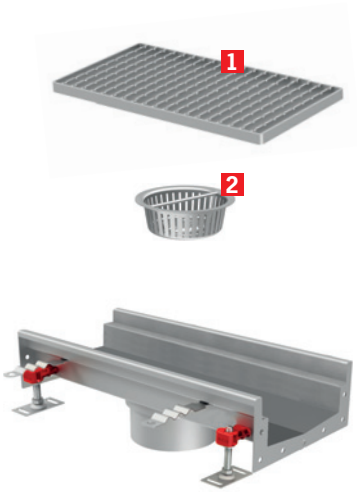
System overview

ACO channel



ACO box channel

ACO slot channel



ACO modular box channel

1 Gratings
2 Silt basket
3 Friction ring
4 Foul air trap
5 Foul air trap support
6 ACO gully

ACO gully
with accessories

Introduction

ACO box channel portfolio

The ACO box channel range includes channels for all common applications and all common floor types (concrete, tiles, resin or vinyl). The ACO box channel portfolio is designed with respect to hygienic design requirements. Selecting a channel from the range is easy.

The unique variability of the whole portfolio makes it easy to choose a channel that suits a customer's specific needs. Channel length, depth and outlet position are just a few of the parameters which can be varied and, regardless of the variations specified, there is no impact on delivery lead times.

ACO box channel ordering

The dimensions of the ACO box channel can be easily specified in respect of project requirements. To specify the channel please use the Specification template (see page 100) which will help you to identify the information you need, or contact our Sales/Technical department.

ACO box channels with fixed dimensions are also available. These dimensions are a selection of most frequently sold ACO box channels. Please see page 85 where you can find the overview.

ACO box channel customization

In addition all ACO box channels can be designed with:

- Special outlet position
- Special depth
- Special slope
- Special channel width
- L-shape and T-shape lay out
- Special side inlets

To ask for customised ACO box channel, please contact our Sales/technical department. Please take into consideration that ACO channel customization could decrease the number of hygienic design features.

ACO box channel system overview

ACO box channel - fixed height solution

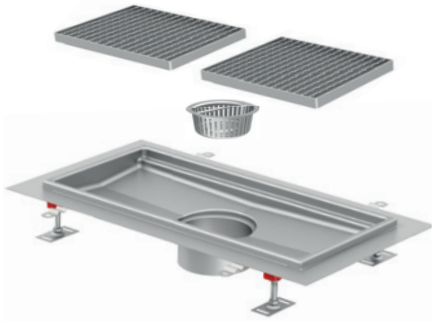
ACO hygienic box channel
Standard edge

ACO hygienic box channel
Extended edge

ACO vinyl box channel

ACO box channel - telescopic solution

ACO hygienic box channel
Standard edge



ACO hygienic box channel
Extended edge

ACO vinyl box channel

ACO hygienic gully
with accessories

ACO hygienic box channel - standard articles

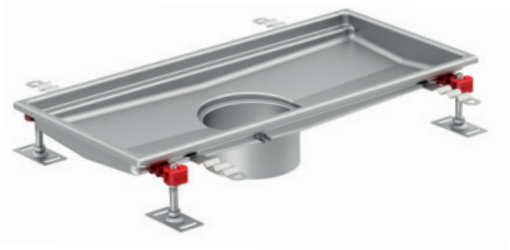
Product information

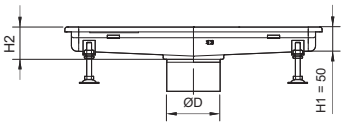
The dimensions of the ACO hygienic box channel for concrete, tiles and resin floor can be easily specified in respect of project requirements or easily chosen from predefined fixed dimensions.

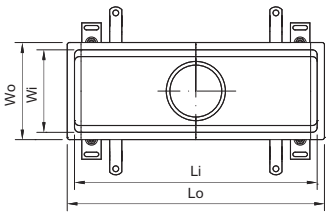
- Hygienic design following EN 1672, EN ISO 14159 and EHEDG document No. 8, 13 and 44
- Tested and certified according to EN 1253
- Available in 1.4301 (304) or 1.4404 (316L) grades of stainless steel
- Fully pickled and passivated
- Material thickness 1,5mm
- Minimal longitudal slope 1 %
- Min. sectional slope 5°
- V-shape bottom for width < 300 mm
- Reinforced bottom for width > 400 mm
- Rubber edge infill
- Outlet without deformation
- Rounded corners equal or larger than 3 mm
- Easy and secure telescopic connection with gully
- Hygienic gratings with slip resistance
- Adjustable leveling feet 60-110 mm
- Anchors for fixing in concrete

Order information

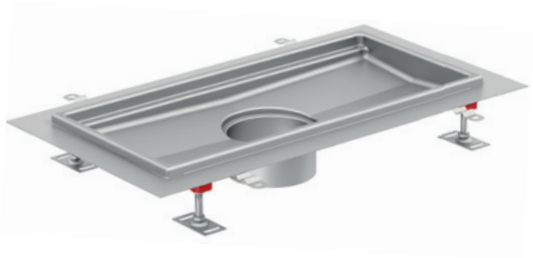
Standard edge

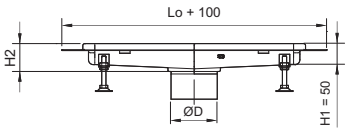


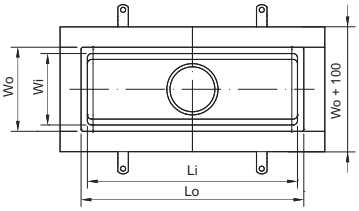




Extended edge







Channel dimensions						Gully	Material	Standard edge	Extended edge
Wo [mm]	Wi [mm]	Lo [mm]	Li [mm]	H2 [mm]	ØD [mm]			Item number	Item number
200	170	530	500	60	125	ACO hygienic gully 142	1.4301	**416584**	**416680**
		530	500				1.4404	**416602**	**416698**
		830	800				1.4301	**416585**	**416681**
		830	800				1.4404	**416603**	**416699**
		1030	1000				1.4301	**416586**	**416682**
		1030	1000				1.4404	**416604**	**416700**
		1230	1200				1.4301	**416587**	**416683**
		1230	1200				1.4404	**416605**	**416701**
		1530	1500				1.4301	**416588**	**416684**
		1530	1500				1.4404	**416606**	**416702**
		2030	2000				1.4301	**416589**	**416685**
		2030	2000				1.4404	**416607**	**416703**

ACO hygienic gully 142 ➔ Page 24 / Silt baskets ➔ Page 144 Gratings ➔ Page 93 / 94 / 97

Order information

Channel dimensions						Gully	Material	Standard edge	Extended edge
Wo [mm]	Wi [mm]	Lo [mm]	Li [mm]	H2 [mm]	ØD [mm]			Item number	Item number
200	170	530	500	60	142	ACO hygienic gully 157	1.4301	**416590**	**416686**
		530	500				1.4404	**416608**	**416704**
		830	800				1.4301	**416591**	**416687**
		830	800				1.4404	**416609**	**416705**
		1030	1000				1.4301	**416592**	**416688**
		1030	1000				1.4404	**416610**	**416706**
		1230	1200				1.4301	**416593**	**416689**
		1230	1200				1.4404	**416611**	**416707**
		1530	1500				1.4301	**416594**	**416690**
		1530	1500				1.4404	**416612**	**416708**
		2030	2000				1.4301	**416595**	**416691**
		2030	2000				1.4404	**416613**	**416709**
300	270	330	300	55	142	ACO hygienic gully 157	1.4301	**416614**	**416710**
		330	300				1.4404	**416628**	**416724**
		630	600	60			1.4301	**416615**	**416711**
		630	600				1.4404	**416629**	**416725**
		1030	1000	60			1.4301	**416616**	**416712**
		1030	1000				1.4404	**416630**	**416726**
		1530	1500	60			1.4301	**416617**	**416713**
		1530	1500				1.4404	**416631**	**416727**
		2030	2000	60			1.4301	**416618**	**416714**
		2030	2000				1.4404	**416632**	**416728**
		3030	3000	70			1.4301	**416619**	**416715**
		3030	3000				1.4404	**416633**	**416729**
		4030	4000	80			1.4301	**416620**	**416716**
		4030	4000				1.4404	**416634**	**416730**
300	270	330	300	55	200	ACO hygienic gully 218	1.4301	**416621**	**416717**
		330	300				1.4404	**416635**	**416731**
		630	600	60			1.4301	**416622**	**416718**
		630	600				1.4404	**416636**	**416732**
		1030	1000	60			1.4301	**416623**	**416719**
		1030	1000				1.4404	**416637**	**416733**
		1530	1500	60			1.4301	**416624**	**416720**
		1530	1500				1.4404	**416638**	**416734**
		2030	2000	60			1.4301	**416625**	**416721**
		2030	2000				1.4404	**416639**	**416735**
		3030	3000	70			1.4301	**416626**	**416722**
		3030	3000				1.4404	**416640**	**416736**
		4030	4000	80			1.4301	**416627**	**416723**
		4030	4000				1.4404	**416641**	**416737**
400	370	430	400	60	142	ACO hygienic gully 157	1.4301	**416642**	**416738**
		430	400				1.4404	**416648**	**416744**
		630	600				1.4301	**416643**	**416739**
		630	600				1.4404	**416649**	**416745**
		830	800				1.4301	**416644**	**416740**
		830	800				1.4404	**416650**	**416746**
400	370	430	400	60	200	ACO hygienic gully 218	1.4301	**416645**	**416741**
		430	400				1.4404	**416651**	**416747**
		630	600				1.4301	**416646**	**416742**
		630	600				1.4404	**416652**	**416748**
		830	800				1.4301	**416647**	**416743**
		830	800				1.4404	**416653**	**416749**

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ACO hygienic box channel - standard articles

Channel dimensions						Gully	Material	Standard edge	Extended edge
Wo [mm]	Wi [mm]	Lo [mm]	Li [mm]	H2 [mm]	ØD [mm]			Item number	Item number
500	470	530	500	65	142	ACO hygienic gully 157	1.4301	**416654**	**416750**
		530	500				1.4404	**416660**	**416756**
		830	800				1.4301	**416655**	**416751**
		830	800				1.4404	**416661**	**416757**
		1030	1000				1.4301	**416656**	**416752**
		1030	1000				1.4404	**416662**	**416758**
500	470	530	500	65	200	ACO hygienic gully 157	1.4301	**416657**	**416753**
		530	500				1.4404	**416663**	**416759**
		830	800				1.4301	**416658**	**416754**
		830	800				1.4404	**416664**	**416760**
		1030	1000				1.4301	**416659**	**416755**
		1030	1000				1.4404	**416665**	**416761**
600	570	630	600	70	200	ACO hygienic gully 218	1.4301	**416666**	**416762**
		630	600				1.4404	**416669**	**416765**
		930	900				1.4301	**416667**	**416763**
		930	900				1.4404	**416670**	**416766**
		1230	1200				1.4301	**416668**	**416764**
		1230	1200				1.4404	**416671**	**416767**
800	770	830	800	80	200	ACO hygienic gully 218	1.4301	**416672**	**416768**
							1.4301	**416673**	**416769**

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ACO hygienic box channel - semi-standard

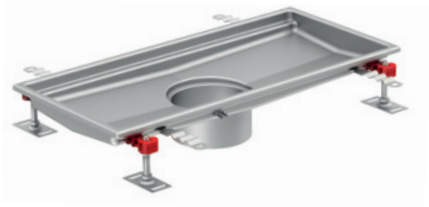
Product information

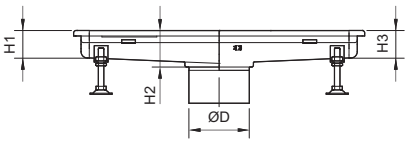
The dimensions of the ACO hygienic box channel for concrete, tiles and resin floor can be easily specified in respect of project requirements.

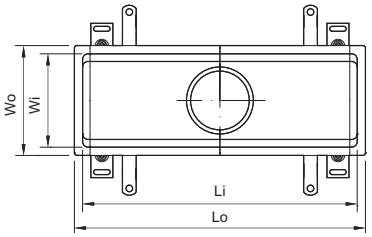
- Hygienic design following EN 1672, EN ISO 14159 and EHEDG document No. 8, 13 and 44
- Tested and certified according to EN 1253
- Available in 1.4301 (304) or 1.4404 (316L) grades of stainless steel
- Fully pickled and passivated
- Material thickness 1,5mm
- V-shape bottom for width < 300 mm
- Reinforced bottom for width > 400 mm
- Length - up to customer request
- Height - variable 50-200
- Outlet position variable in longitudial axis
- Sectional slope of the channel bottom 5°
- Longitudinal slope of the channel bottom 1-5 %
- Standardized widths
- Rounded corners minimal 3 mm
- Easy and secure telescopic connection with gully
- Hygienic gratings with slip resistance
- Adjustable leveling feet 60-110 mm
- Anchors for fixing in concrete

Order information

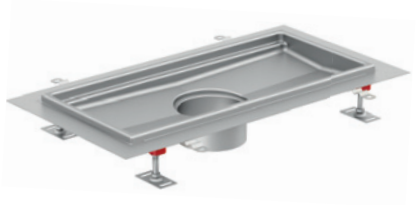
Standard edge

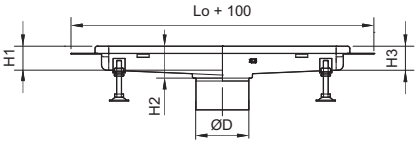


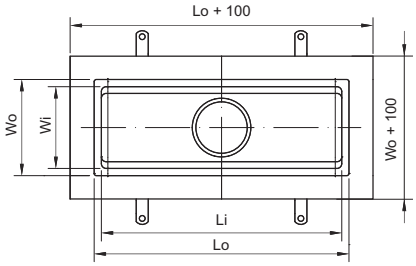




Extended edge







External (overall) width Wo [mm]	Internal (grating) width Wi [mm]	Length of channel Lo	Height at outlet of channel H2	Height at end of channel H1 and H3
200	170	Variable *	50-200	50, 80, 110, 140
300	270			
400	370			
500	470			
600	570			
800	770			

* Long channels over 6m are standard devided in 6m sections with transport joins.

In case of requirements one piece channel, channels have to be welded on site. Please contact our Sales/Technical department.

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ACO vinyl box channel - standard articles

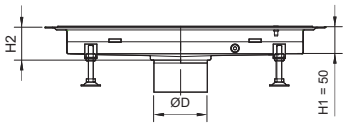
Product information

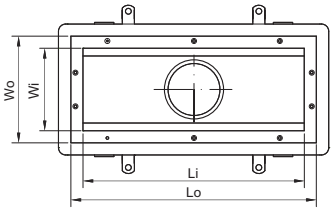
The dimensions of the ACO vinyl box channel can be specified in respect of project requirements or easily chosen from predefined fixed dimensions.

- Fully compliant to EN 1253
- Available in 1.4301 (304) or 1.4404 (316L) grades of stainless steel, pickled and passivated
- Material thickness 1,5 mm
- Easy and secure telescopic connection with gully
- Adjustable leveling feet 60-110 mm
- Anchors for fixing in concrete

Order information

Vinyl edge





Channel dimensions						Gully	Material	Vinyl edge
Wo [mm]	Wi [mm]	Lo [mm]	Li [mm]	H2 [mm]	ØD [mm]			Item number
220	170	550	500	60	125	ACO hygienic gully 142	1.4301	**413358**
		550	500				1.4404	**413376**
		850	800				1.4301	**413359**
		850	800				1.4404	**413377**
		1050	1000				1.4301	**413360**
		1050	1000				1.4404	**413378**
		1250	1200				1.4301	**413361**
		1250	1200				1.4404	**413379**
		1550	1500				1.4301	**413362**
		1550	1500				1.4404	**413380**
		2050	2000				1.4301	**413363**
		2050	2000				1.4404	**413381**
220	170	550	500	60	142	ACO hygienic gully 157	1.4301	**413364**
		550	500				1.4404	**413382**
		850	800				1.4301	**413365**
		850	800				1.4404	**413383**
		1050	1000				1.4301	**413366**
		1050	1000				1.4404	**413384**
		1250	1200				1.4301	**413367**
		1250	1200				1.4404	**413385**
		1550	1500				1.4301	**413368**
		1550	1500				1.4404	**413386**
		2050	2000				1.4301	**413369**
		2050	2000				1.4404	**413387**

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Channel dimensions						Gully	Material	Vinyl edge
Wo [mm]	Wi [mm]	Lo [mm]	Li [mm]	H2 [mm]	ØD [mm]			Item number
320	270	350	300	60	142	ACO hygienic gully 157	1.4301	**413388**
		350	300				1.4404	**413402**
		650	600				1.4301	**413389**
		650	600				1.4404	**413403**
		1050	1000				1.4301	**413390**
		1050	1000				1.4404	**413404**
		1550	1500				1.4301	**413391**
		1550	1500				1.4404	**413405**
		2050	2000				1.4301	**413392**
		2050	2000				1.4404	**413406**
		3050	3000	70			1.4301	**413393**
		3050	3000				1.4404	**413407**
		4050	4000	80			1.4301	**413394**
		4050	4000				1.4404	**413408**
320	270	350	300	60	200	ACO hygienic gully 218	1.4301	**413395**
		350	300				1.4404	**413409**
		650	600				1.4301	**413396**
		650	600				1.4404	**413410**
		1050	1000				1.4301	**413397**
		1050	1000				1.4404	**413411**
		1550	1500				1.4301	**413398**
		1550	1500				1.4404	**413412**
		2050	2000				1.4301	**413399**
		2050	2000				1.4404	**413413**
		3050	3000	70			1.4301	**413400**
		3050	3000				1.4404	**413414**
		4050	4000	80			1.4301	**413401**
		4050	4000				1.4404	**413415**
420	370	450	400	60	142	ACO hygienic gully 157	1.4301	**413416**
		450	400				1.4404	**413422**
		650	600				1.4301	**413417**
		650	600				1.4404	**413423**
		850	800				1.4301	**413418**
		850	800				1.4404	**413424**
420	370	450	400	60	200	ACO hygienic gully 218	1.4301	**413419**
		450	400				1.4404	**413425**
		650	600				1.4301	**413420**
		650	600				1.4404	**413426**
		850	800				1.4301	**413421**
		850	800				1.4404	**413427**
520	470	530	500	65	142	ACO hygienic gully 157	1.4301	**413428**
		530	500				1.4404	**413434**
		830	800				1.4301	**413429**
		830	800				1.4404	**413435**
		1030	1000				1.4301	**413430**
		1030	1000				1.4404	**413436**
520	470	550	500	65	200	ACO hygienic gully 218	1.4301	**413431**
		550	500				1.4404	**413437**
		850	800				1.4301	**413432**
		850	800				1.4404	**413438**
		1050	1000				1.4301	**413433**
		1050	1000				1.4404	**413439**
620	570	650	600	70	200	ACO hygienic gully 218	1.4301	**413440**
		650	600				1.4404	**413443**
		950	900				1.4301	**413441**
		950	900				1.4404	**413444**
		1250	1200				1.4301	**413442**
		1250	1200				1.4404	**413445**
820	770	850	800	80	200	ACO hygienic gully 218	1.4301	**413446**
							1.4301	**413447**

ACO hygienic gully 157 ➔ Page 39
ACO hygienic gully 218 ➔ Page 51
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Gratings for ACO vinyl box channel ➔ Page 93 / 94 / 97

ACO vinyl box channel - semi-standard

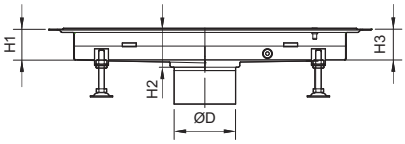
Product information

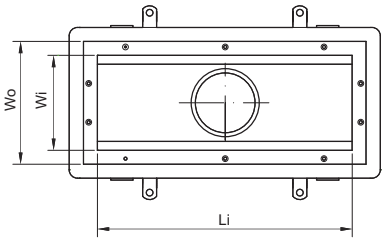
The dimensions of the ACO vinyl box channel can be easily specified in respect of project requirements.

- Fully compliant to EN 1253
- Available in 1.4301 (304) or 1.4404 (316L) grades of stainless steel, pickled and passivated
- Material thickness 1,5 mm
- Height variable 50-200 mm
- Length – up to customer request
- Standardized widths
- Outlet position central or variable in longitudinal axis
- Longitudinal slopes of the channel bottom 1-5 %
- Adjustable leveling feet 60-110 mm
- Anchors for fixing in concrete

Order information

Vinyl edge





External (overall) width Wo [mm]	Internal (grating) width Wi [mm]	Length of channel Li	Height at outlet of channel H2	Height at end of channel H1 and H3
230	170	Variable *	50-200	50, 80, 110, 140
330	270			
430	370			
530	470			
630	570			
830	870			

* Long channels over 6m are standard devided in 6m sections with transport joins.

In case of requirements one piece channel, channels have to be welded on site. Please contact our Sales/Technical department.

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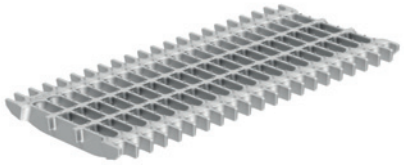
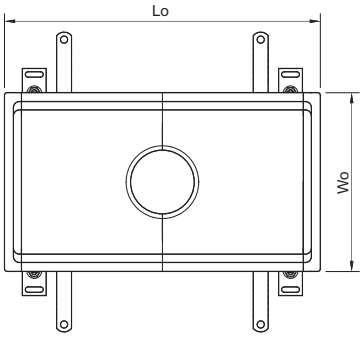
ACO hygienic cast grating

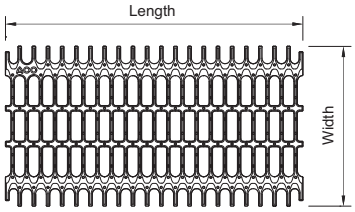
Product information

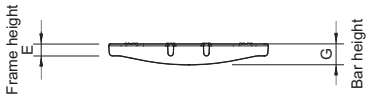
- ACO hygienic cast grating with slip resistant finish
- Frameless design for optimum drainability and cleanibility
- Tested and certified according to EN 1253
- Hygienic design following EN 1672, EN ISO 14159 and EHEDG document No. 8, 13 and 44
- Surface electropolished
- Easy to clean grates
- Designed for Load class - M 125
- Slip resistant
  - Low potencial for slip according to BS 7976-2,
  - R13 according to DIN 51130



Order information - Load class M 125





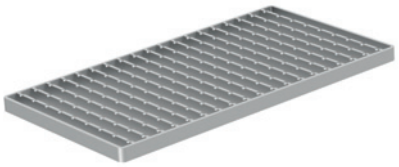


Channel dimension		Grating dimension				Material	Item number	Quantity to fill channel
Wo [mm]	Lo [mm]	Frame height E [mm]	Bar height G [mm]	Width [mm]	Length [mm]			
200	530	20	30	168	499	1.4301	**416947**	1
	830	20	30	168	398	1.4301	**416948**	2
	1030	20	30	168	499	1.4301	**416947**	2
	1230	20	30	168	398	1.4301	**416948**	3
	1530	20	30	168	499	1.4301	**416947**	3
	2030	20	30	168	499	1.4301	**416947**	4
300	330	20	30	268	298	1.4301	**416946**	1
	630	20	30	268	298	1.4301	**416946**	2
	1030	20	30	268	499	1.4301	**416945**	2
	1530	20	30	268	499	1.4301	**416945**	3
	2030	20	30	268	499	1.4301	**416945**	4
	3030	20	30	268	499	1.4301	**416945**	6
	4030	20	30	268	499	1.4301	**416945**	8

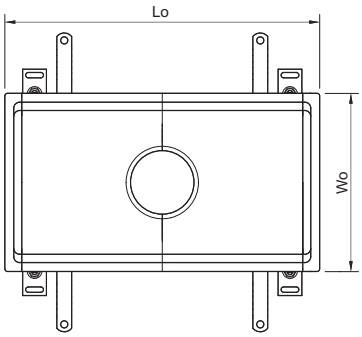
ACO hygienic ladder grating

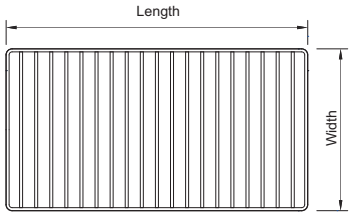
Product information

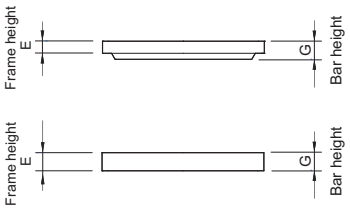
- ACO hygienic ladder grating with slip resistant finish
- Hygienic design following EN 1672, EN ISO 14159 and EHEDG document No. 8, 13 and 44
- Designed for Load class - R 50 (version for 5 000 kg) and M 125 according EN 1253
- Surface - electropolished
- High flow capacity of grates
- Rounded corners
- Easy to clean grates = fully welded
- Slip resistant
  - Low potencial for slip according to BS 7976-2,
  - R11 according to DIN 51130



Order information - Load class R 50







Channel dimension		Grating dimension				Material	Item number	Quantity to fill channel
Wo [mm]	Lo [mm]	Frame height E [mm]	Bar height G [mm]	Width [mm]	Length [mm]			
200	530	20	20	168	499	1.4301	**416802**	1
						1.4404	**416803**	
	830	20	20	168	398	1.4301	**416808**	2
						1.4404	**416809**	
	1030	20	20	168	499	1.4301	**416802**	2
						1.4404	**416803**	
	1230	20	20	168	398	1.4301	**416808**	3
						1.4404	**416809**	
	1530	20	20	168	499	1.4301	**416802**	3
						1.4404	**416803**	
	2030	20	20	168	499	1.4301	**416802**	4
						1.4404	**416803**	

Channel dimension		Grating dimension				Material	Item number	Quantity to fill channel
Wo [mm]	Lo [mm]	Frame height E [mm]	Bar height G [mm]	Width [mm]	Length [mm]			
300	330	20	20	268	298	1.4301	**416812**	1
						1.4404	**416813**	
	630	20	20	268	298	1.4301	**416812**	2
						1.4404	**416813**	
	1030	20	20	268	499	1.4301	**416814**	2
						1.4404	**416815**	
	1530	20	20	268	499	1.4301	**416814**	3
						1.4404	**416815**	
	2030	20	20	268	499	1.4301	**416814**	4
						1.4404	**416815**	
	3030	20	20	268	499	1.4301	**416814**	6
						1.4404	**416815**	
	4030	20	20	268	499	1.4301	**416814**	8
						1.4404	**416815**	
400	430	30	30	368	398	1.4301	**416820**	1
						1.4404	**416821**	
	630	30	30	368	598	1.4301	**416822**	1
						1.4404	**416823**	
	830	30	30	368	398	1.4301	**416820**	2
						1.4404	**416821**	
500	530	30	30	468	499	1.4301	**416828**	1
						1.4404	**416829**	
	830	30	30	468	398	1.4301	**416830**	2
						1.4404	**416831**	
	1030	30	30	468	499	1.4301	**416828**	2
						1.4404	**416829**	
600	630	30	30	568	298	1.4301	**416838**	2
						1.4404	**416839**	
	930	30	30	568	298	1.4301	**416838**	3
						1.4404	**416839**	
	1230	30	30	568	298	1.4301	**416838**	4
						1.4404	**416839**	
800	830	30	30	768	398	1.4301	**416842**	2
						1.4404	**416843**	

Order information - Load class M 125

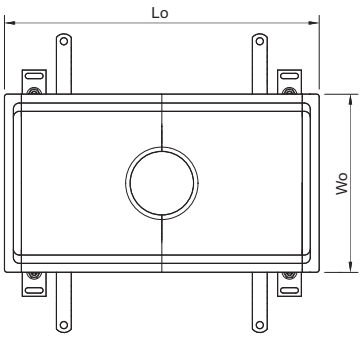
Channel dimension		Grating dimension				Material	Item number	Quantity to fill channel
Wo [mm]	Lo [mm]	Frame height E [mm]	Bar height G [mm]	Width [mm]	Length [mm]			
200	530	20	30	168	499	1.4301	**416804**	1
						1.4404	**416805**	
	830	20	30	168	398	1.4301	**416810**	2
						1.4404	**416811**	
	1030	20	30	168	499	1.4301	**416804**	2
						1.4404	**416805**	
	1230	20	30	168	398	1.4301	**416810**	3
						1.4404	**416811**	
	1530	20	30	168	499	1.4301	**416804**	3
						1.4404	**416805**	
	2030	20	30	168	499	1.4301	**416804**	4
						1.4404	**416805**	
300	330	20	30	268	298	1.4301	**416816**	1
						1.4404	**416817**	
	630	20	30	268	298	1.4301	**416816**	2
						1.4404	**416817**	
	1030	20	30	268	499	1.4301	**416818**	2
						1.4404	**416819**	
	1530	20	30	268	499	1.4301	**416818**	3
						1.4404	**416819**	
	2030	20	30	268	499	1.4301	**416818**	4
						1.4404	**416819**	
	3030	20	30	268	499	1.4301	**416818**	6
						1.4404	**416819**	
	4030	20	30	268	499	1.4301	**416818**	8
						1.4404	**416819**	
400	430	30	30	368	398	1.4301	**416824**	1
						1.4404	**416825**	
	630	30	30	368	598	1.4301	**416826**	1
						1.4404	**416827**	
	830	30	30	368	398	1.4301	**416824**	2
						1.4404	**416825**	
500	530	30	30	468	499	1.4301	**416832**	1
						1.4404	**416833**	
	830	30	30	468	398	1.4301	**416834**	2
						1.4404	**416835**	
	1030	30	30	468	499	1.4301	**416832**	2
						1.4404	**416833**	

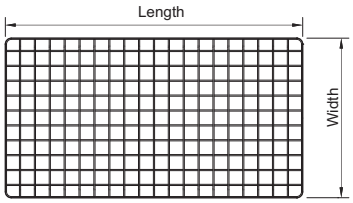
ACO mesh grating

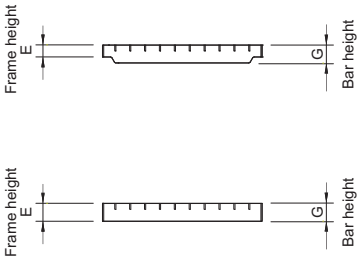
Product information

- ACO mesh grating with either slip resistant finish
- Tested and certified according to EN 1253
- Designed for Load Class - L 15
- Surface - electropolished
- High flow capacity of grates
- Rounded corners
- Slip resistant
  - Slip resistant low potencial for slip according to BS 7976-2,
  - R11 according to DIN 51130

Order information - Load class L 15





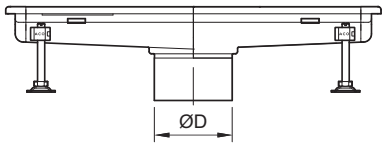


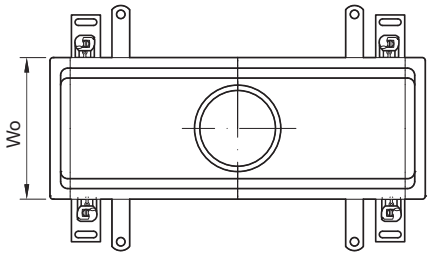
Channel dimension		Grating dimension				Material	Item number	Quantity to fill channel
Wo [mm]	Lo [mm]	Frame height E [mm]	Bar height G [mm]	Width [mm]	Length [mm]			
200	530	20	30	168	499	1.4301	**416860**	1
						1.4404	**416861**	
	830	20	30	168	398	1.4301	**416862**	2
						1.4404	**416863**	
	1030	20	30	168	499	1.4301	**416860**	2
						1.4404	**416861**	
	1230	20	30	168	398	1.4301	**416862**	3
						1.4404	**416863**	
	1530	20	30	168	499	1.4301	**416860**	3
						1.4404	**416861**	
	2030	20	30	168	499	1.4301	**416860**	4
						1.4404	**416861**	

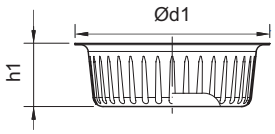
Channel dimension		Grating dimension				Material	Item number	Quantity to fill channel
Wo [mm]	Lo [mm]	Frame height E [mm]	Bar height G [mm]	Width [mm]	Length [mm]			
300	330	20	30	268	298	1.4301	**416864**	1
						1.4404	**416865**	
	630	20	30	268	298	1.4301	**416864**	2
						1.4404	**416865**	
	1030	20	30	268	499	1.4301	**416866**	2
						1.4404	**416867**	
	1530	20	30	268	499	1.4301	**416866**	3
						1.4404	**416867**	
	2030	20	30	268	499	1.4301	**416866**	4
						1.4404	**416867**	
	3030	20	30	268	499	1.4301	**416866**	6
						1.4404	**416867**	
	4030	20	30	268	499	1.4301	**416866**	8
						1.4404	**416867**	
400	430	30	30	368	398	1.4301	**416868**	1
						1.4404	**416869**	
	630	30	30	368	598	1.4301	**416870**	1
						1.4404	**416871**	
	830	30	30	368	398	1.4301	**416868**	2
						1.4404	**416869**	
500	530	30	30	468	499	1.4301	**416872**	1
						1.4404	**416873**	
	830	30	30	468	398	1.4301	**416874**	2
						1.4404	**416875**	
	1030	30	30	468	499	1.4301	**416872**	2
						1.4404	**416873**	
600	630	30	30	568	298	1.4301	**416876**	2
						1.4404	**416877**	
	930	30	30	568	298	1.4301	**416876**	3
						1.4404	**416877**	
	1230	30	30	568	298	1.4301	**416876**	4
						1.4404	**416877**	
800	830	30	30	768	398	1.4301	**416878**	2
						1.4404	**416879**	

Accessories for ACO hygienic box channel

Silt baskets for ACO hygienic box channel







Channel dimension		Direction of gully outlet	Silt basket dimension		Capacity	Material	Item number
Width Wo [mm]	Outlet ØD [mm]		Ød1 [mm]	h1 [mm]	[l]		
200, 300, 400, 500, 600, 800	125	vertical, horizontal	142	45	0,4	1.4301	**416900**
						1.4404	**416901**
200	142	vertical	142	45	0,4	1.4301	**416900**
						1.4404	**416901**
		horizontal	142	25	0,3	1.4301	**416902**
						1.4404	**416903**
	welded with ACO hygienic gully 142	vertical, horizontal	142	25	0,3	1.4301	**416902**
						1.4404	**416903**
300, 400, 500, 600, 800	142 or welded with ACO hygienic gully 157	vertical	159	50	0,6	1.4301	**416904**
						1.4404	**416905**
		horizontal	159	26	0,3	1.4301	**416906**
						1.4404	**416907**
300, 400, 500, 600, 800	200 or welded with ACO hygienic gully 218	vertical	222	50	0,7	1.4301	**416908**
						1.4404	**416909**
		horizontal	222	26	0,4	1.4301	**416910**
						1.4404	**416911**

ACO customized box channel

Product information

The dimensions of the ACO customized box channel for concrete, tiles and resin floor can be easily specified in respect of project requirements.

- Available in 1.4301 (304) or 1.4404 (316L) grades of stainless steel, pickled and passivated
- Material thickness 1,5 mm or 2 mm
- Width – up to customer request
- Length – up to customer request
- Depth – up tu customer reguest
- Variable shape of channel – T shape, L shape, …
- Longitudinal slopes of the channel bottom 1-5 %
- Outlet position central or variable in longitudinal axis or excentric outlet
- Adjustable leveling feet
- Anchors for fixing in cocrete

Customization template

Instruction

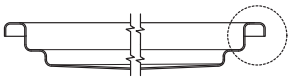
Yellow field means fully hygienic solution.

Step 1 - Material

Stainless steel grade 1.4301 (AISI 304)

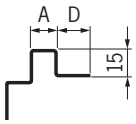
Stainless steel grade 1.4404 (AISI 316L)

Step 2 - Edge profiles



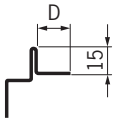
Detail of the Edge profile

Extended



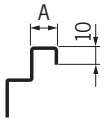
A	15
	25
D	50
	??

Folded with flange



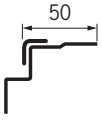
D	50
	??

Standard



A	15
	25

Vinyl clamp



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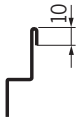
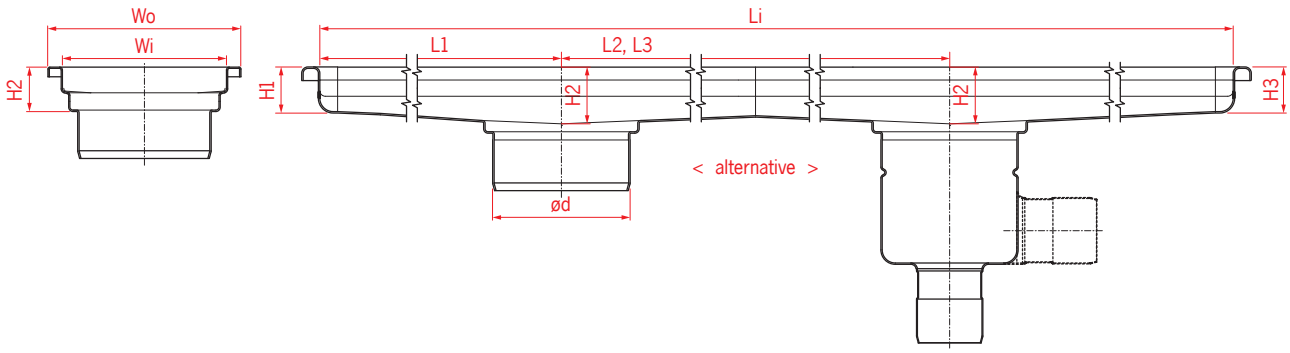


Edge infill

rubber

steel

Step 3 - Channel dimensions



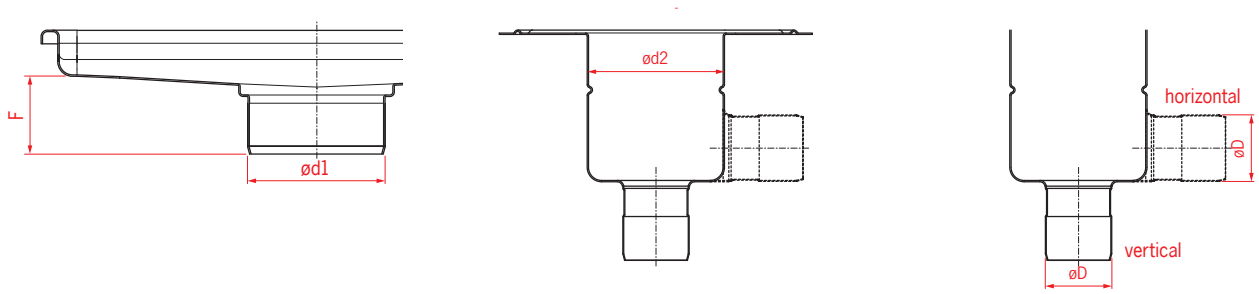
Width overall/ internal Wo/Wi	
200/170	■
300/270	■
400/370	■
500/470	■
600/570	■
800/770	■
Customized width	□

Channel bottom height		
	H2	■
Slope		
No		□
Yes - slope 1%		■
Yes - with defined height	H1	■
	H3	■

Channel lenghts	
Li	■
L1	■
L2	■
L3	■
L4	■

Step 4 - Gully

Outlet pipe □ **Telescopic gully** □ **Welded gully** ■

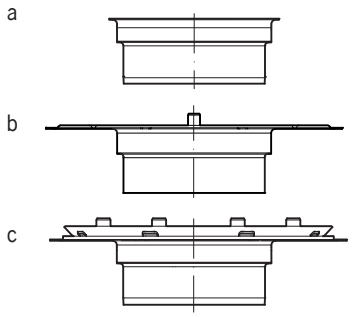


Outlet Diameter of outlet Ød1	
75	□
110	□
125	□
142	□
200	□

Vertical gully			Horizontal gully		
Diameter of gully body Ød2	Diameter of outlet pipe ØD		Diameter of gully body Ød2	Diameter of outlet pipe ØD	
142 (1.4 l/s)	75	□	142 (1.4 l/s)	75	□
142 (1.6 l/s)	110	□	142 (1.6 l/s)	110	□
157 (2.7 l/s)	75	□	157 (2.6 l/s)	75	□
157 (3.5 l/s)	110	□	157 (2.8 l/s)	110	□
218 (5,0 l/s)	110	□	218 (4.4 l/s)	110	□
218 (5,0 l/s)	160	□			

Outlet lenght F	
36	☐
58	☐
150	☐
Customized lenght	☐

Flange (only for telescopic gully)	
Location (a)	☐
Bonding (b)	☐
Clamping (c)	☐

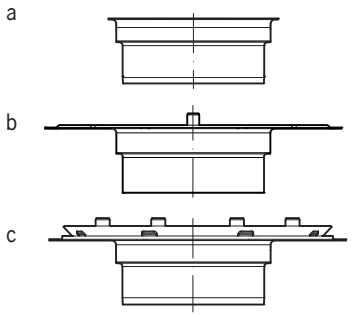


Step 5 - Channel accessories

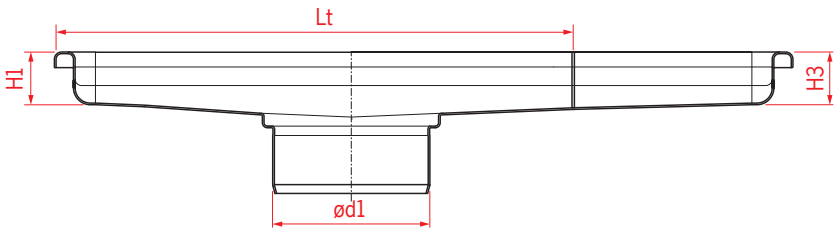
Foul air trap (FAT)	
With FAT	■
Without FAT	☐

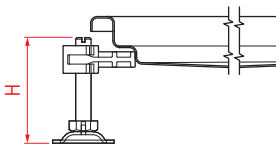
Silt basket	
With Silt basket	☐
Without Silt basket	☐

Raising piece	
Location flange (a)	☐
Bonding flange (b)	☐
Clamping flange (c)	☐



Step 6 - Delivery requirements



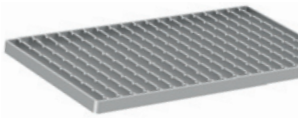


Transport connection Lt	
6000 (standard)	☐
3000	☐
2000	☐

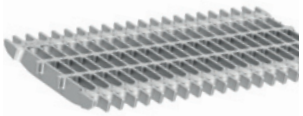
Leveling feet H	
70 (standard)	☐
200	☐

Step 7 - Gratings

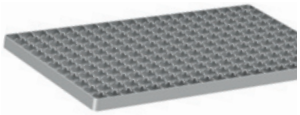
Yes ☐ No ☐



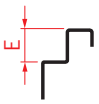
ACO hygienic ladder grating	
Antislip	■
Plain	■
Load class	
R 50	☐
M 125	☐
N 250	☐
P 400	☐



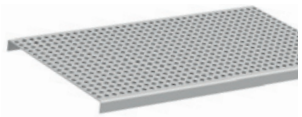
ACO hygienic cast grating	
Antislip	■
-	
Load class	
M 125 (max. Wo = 300)	☐



ACO mesh grating	
Antislip	☐
Plain	☐
Load class	
L 15	☐
R 50 (max. Wo = 200)	☐
M 125 (max. Wo = 300)	

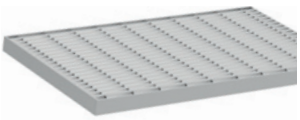


Height of gratings E	
20	☐
25	☐
30	☐
40	☐



ACO perforated grating	
Load class	
L 15	☐

ACO multi-slot 5 grating	
Load class	
L 15	☐
R 50 (max. Wo = 200)	☐



ACO heelsafe grating	
Load class	
L 15 (max. Wo = 200)	☐

Other please specify	

Introduction

ACO slot channel portfolio

The ACO slot channel range covers channels for all common applications and all common floor types (concrete, tiles, resin or vinyl). Selecting a channel from the range is easy. The unique variability of the whole portfolio allows choosing the right channel according to all customers' needs.

Channel´s length, depth and outlet position are just a few of the parameters which can be varied and, regardless of the variations specified, there is no impact on delivery lead times.

ACO slot channel ordering

The dimensions of the ACO slot channel can be easily specified in respect of project requirements. To specify the channel please use the Specification template (see page 107) which will help you to identify the information needed or contact our Sales/Technical department.

ACO slot channel customization

In addition all ACO slot channel can be designed with:

- Special outlet position
- Special depth
- Special slope
- Special slot channel width
- L-shape and T-shape layout
- Special side inlets

To request customised ACO slot channel, please contact our Sales/technical department.

ACO slot channel system overview

ACO slot channel - fixed height solution

ACO slot channel - telescopic solution

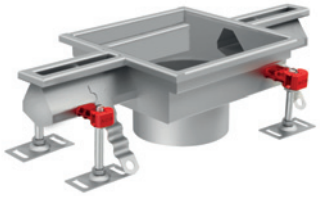
ACO slot channel - semi-standard

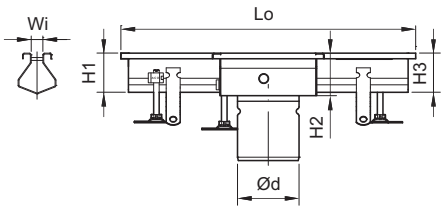
Product information

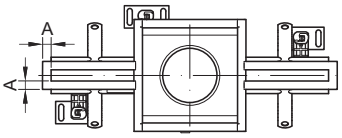
The dimensions of the ACO slot channel for concrete, tiles and resin floor can be easily specified in respect of project requirements.

- Tested and certified according to EN 1253
- Available in 1.4301 (304) or 1.4404 (316L) grades of stainless steel, pickled and passivated
- 1,5 mm material thickness
- ACO slot channel 8 or 20 mm
- Length – up to customer request
- Longitudinal slopes of the channel bottom 1-5 %
- Standardized widths
- Outlet position central or variable in longitudinal axis
- Adjustable leveling feet
- Anchors for fixing in cocrete

Order information







External (overall) width Wi [mm]	Dimension of edge A [mm]	Length of channel Lo	Height at outlet of channel H2	Height at end of channel H1 and H3
20	15	Variable *	50-200	50-200
8	folded		50-200	50-200

* The maximum transportable length of channel is 6 000 mm. Long channels over 6 000 mm are standardly divided in 6 m sections with transport joins.

ACO hygienic gully 142 ➔ Page 24
ACO hygienic gully 157 ➔ Page 39
ACO hygienic gully 218 ➔ Page 51
ACO gully EG150 ➔ Page 59 / Accessories ➔ Page 75 / 144
Gratings for gully top ➔ Page 61

ACO customized slot channel

Product information

The dimensions of the ACO customized slot channel for concrete, tiles and resin floor can be easily specified in respect of project requirements.

- Tested and certified according to EN 1253
- Available in 1.4301 (304) or 1.4404 (316L) grades of stainless steel, pickled and passivated
- 1,5 mm material thickness
- Slot of channel 8 or 20
- Length – up to customer request
- Longitudinal slopes of the channel bottom 1-5 %
- Outlet position central or variable in longitudinal axis
- Adjustable leveling feet
- Anchors for fixing in cocrete

Customization template

Step 1 - Material

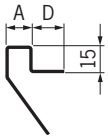
☐ Stainless steel grade 1.4301 (AISI 304)

☐ Stainless steel grade 1.4404 (AISI 316L)

Step 2 - Edge profiles

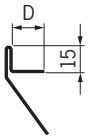
Detail of the Edge profile

Extended ☐



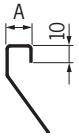
A	15	☐
	25	☐
D	50	☐
	??	☐

Folded with flange ☐



D	50	☐
	??	☐

Standard ☐



A	15	☐
	25	☐

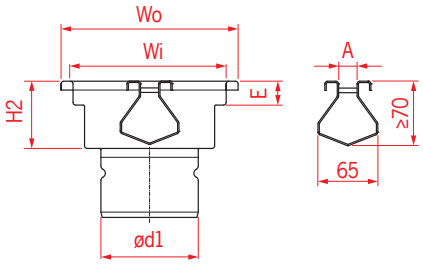
Edge infill

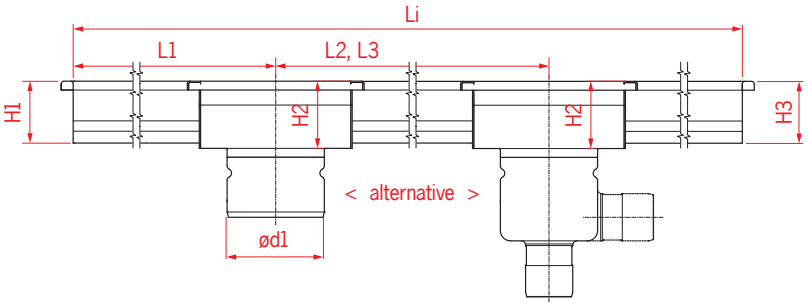
☐ rubber

☐ steel

Folded ☐

Step 2 - Edge profiles





Gully top dimension Wo	Channel outlet d1	
200 x 200	75	☐
200 x 200	110	☐
200 x 200	125	☐
250 x 250	142	☐
300 x 300	200	☐
Customized width		☐

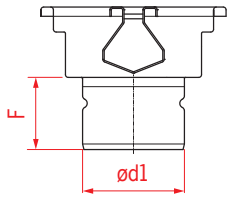
Channel bottom height		
	H2	☐
Slope		
No		☐
Yes - slope 1%		☐
Yes - with defined height	H1	☐
	H3	☐

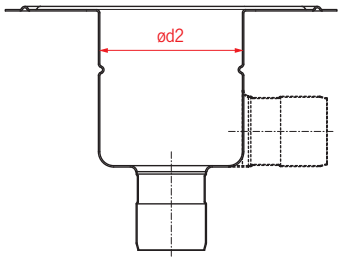
Channel lenghts	
Li	☐
L1	☐
L2	☐
L3	☐

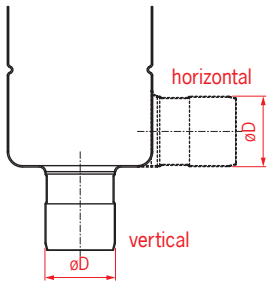
Slot dimension A	
8	☐
20	☐

Step 3 - Gully

Outlet pipe ☐ **Telescopic gully** ☐ **Welded gully** ☐







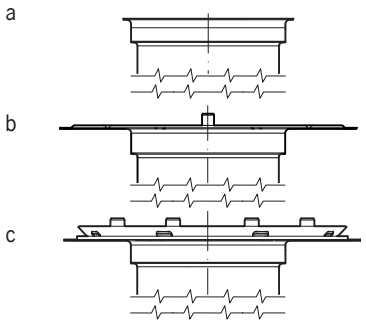
Channel outlet Diameter of outlet Wo	Ød1	
200 x 200	75	☐
200 x 200	110	☐
200 x 200	125	☐
250 x 250	142	☐
300 x 300	200	☐

Vertical gully Diameter of gully body Ød2	Diameter of outlet pipe ØD	
142 (1.4 l/s)	75	☐
142 (1.6 l/s)	110	☐
157 (2.7 l/s)	75	☐
157 (3.5 l/s)	110	☐
218 (5,0 l/s)	110	☐
218 (5,0 l/s)	160	☐

Horizontal gully Diameter of gully body Ød2	Diameter of outlet pipe ØD	
142 (1.4 l/s)	75	☐
142 (1.6 l/s)	110	☐
157 (2.6 l/s)	75	☐
157 (2.8 l/s)	110	☐
218 (4.4 l/s)	110	☐

Outlet lenght F
36
58
150

Flange (only for telescopic gully)
Location (a)
Bonding (b)
Clamping (c)

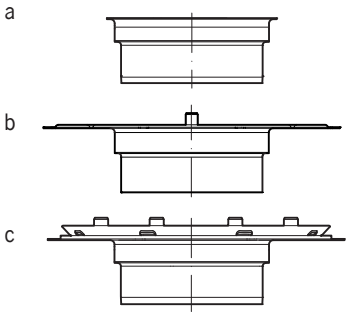


Step 4 - Channel accessories

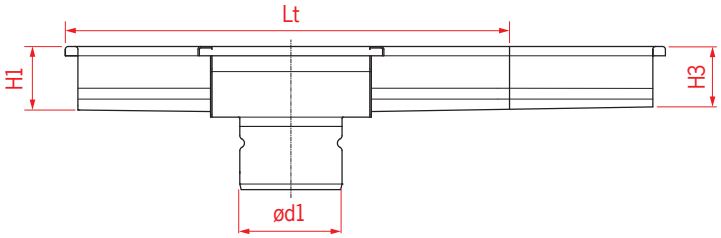
Foul air trap (FAT)
With FAT
Without FAT

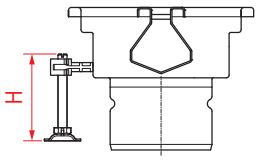
Silt basket
With Silt basket
Without Silt basket

Raising piece
Location flange (a)
Bonding flange (b)
Clamping flange (c)



Step 5 - Delivery requirements



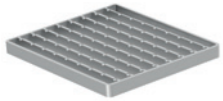


Transport connection Lt
6000 (standard)
3000
2000

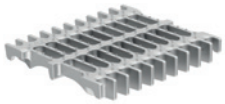
Leveling feet H
70 (standard)
200

Step 6 - Gratings

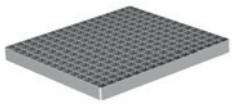
Yes ☐ **No** ☐



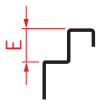
ACO hygienic ladder grating	
Antislip	☐
Plain	☐
Load class	
R 50	☐
M 125	☐
C 250	☐



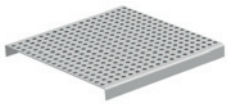
ACO hygienic cast grating	
Antislip	☐
-	
Load class	
M 125	☐



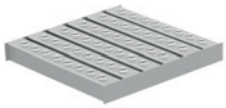
ACO mesh grating	
Antislip	☐
Plain	☐
Load class	
R 50	☐
L 15	☐



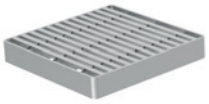
Height of gratings E	
20	☐
25	☐
30	☐
40	☐



ACO perforated grating	
Load class	
L 15	☐
R 50	☐



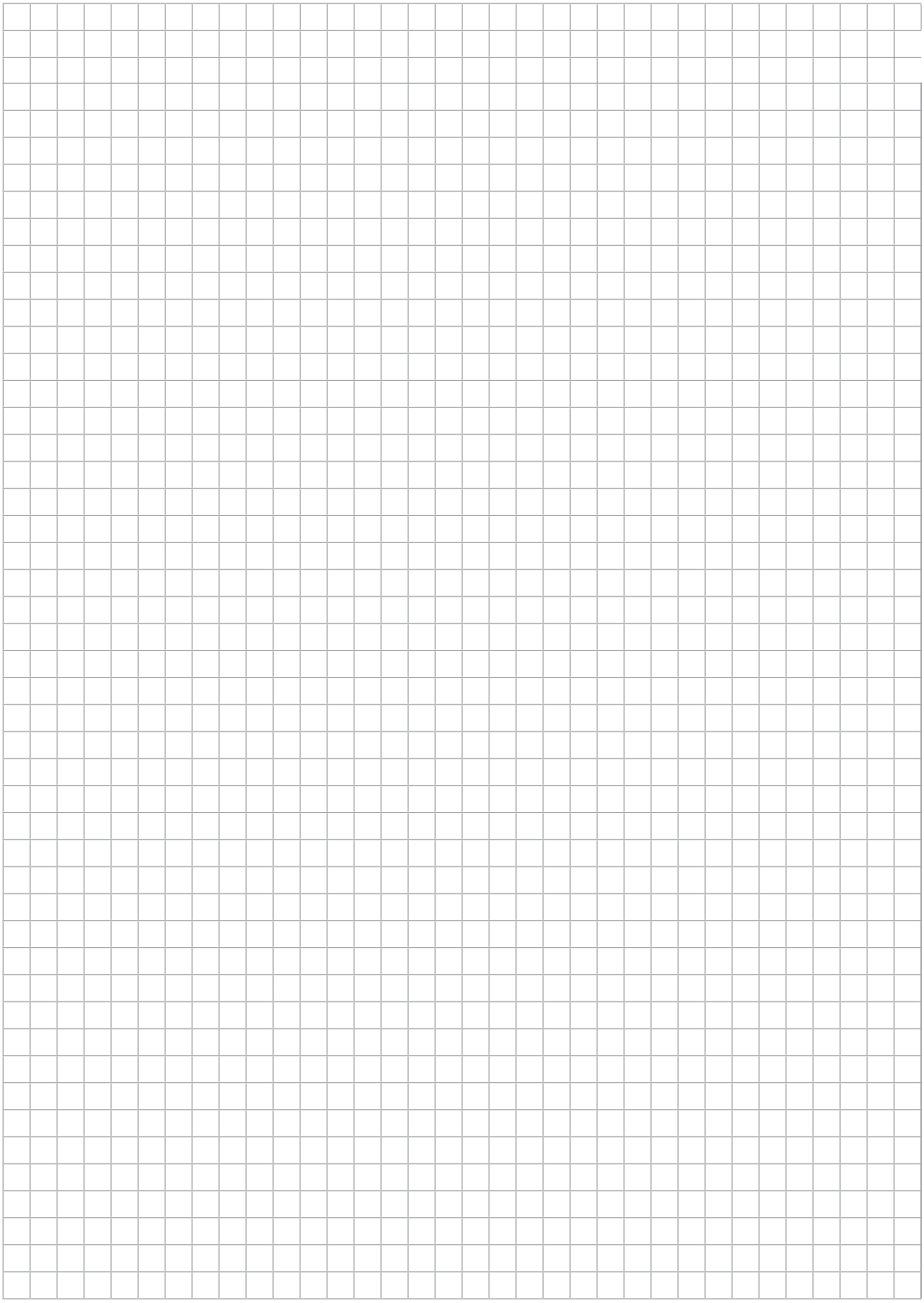
ACO multi-slot 5 grating	
Load class	
L 15	☐
R 50	☐



ACO heelsafe grating	
Load class	
L 15	☐

Other please specify	

Your specification/shape of the channel, outlet position



Introduction

ACO modular channel portfolio

The ACO modular channel range includes channels for all common applications and all common floor types (concrete, tiles, resin or vinyl). Selecting a channel from the range is easy. The unique variability of the whole portfolio makes it easy to choose the right channel according to a specific customer's needs.

Channel´s length, depth and outlet position are just a few of the parameters which can be varied and, regardless of the variations specified, there is no impact on delivery lead times.

ACO modular channel ordering

The dimensions of the ACO modular channel can be easily specified in respect of project requirements.

ACO modular channel customization

In addition, all ACO modular channels can be designed to a special length.

To request customised ACO modular channel, please contact our Sales/ Technical department.

ACO modular channel system overview

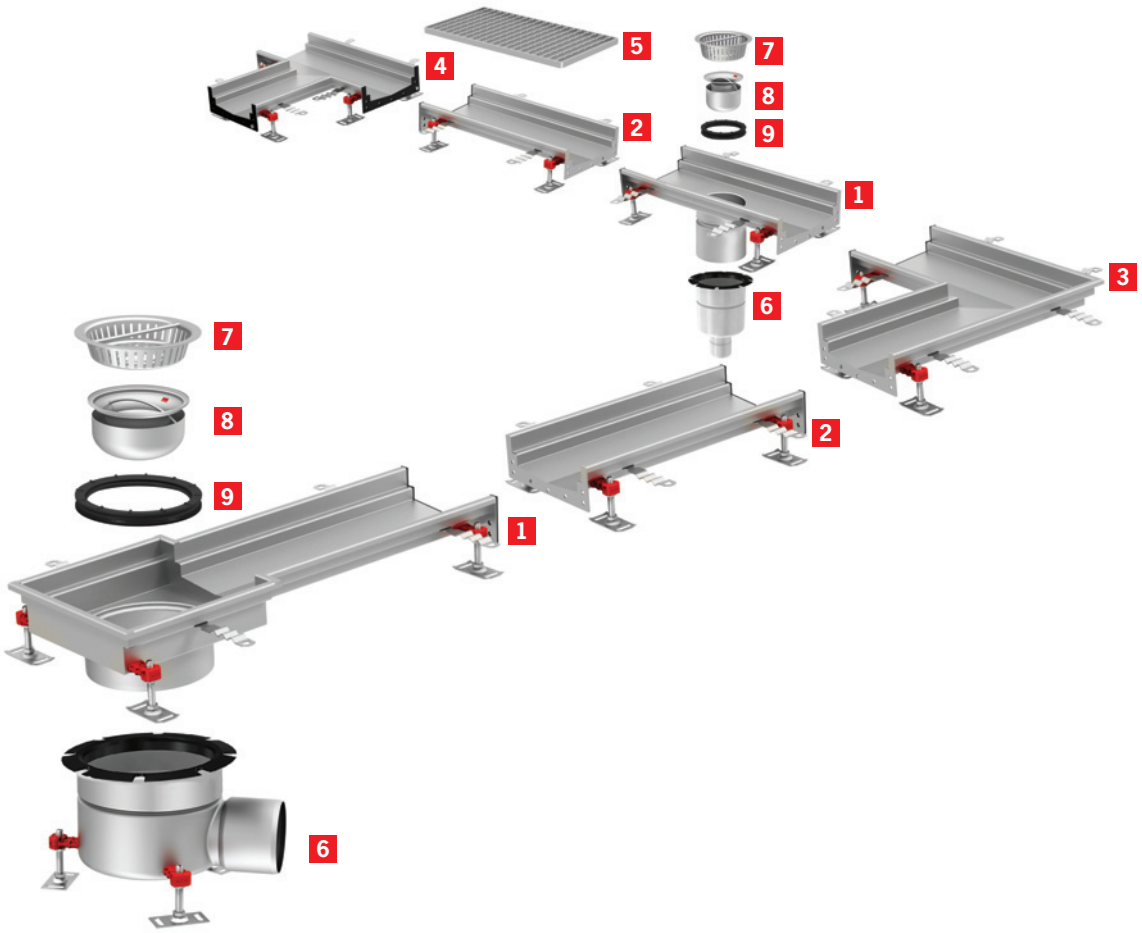
ACO modular box channel 125

ACO modular box channel 200

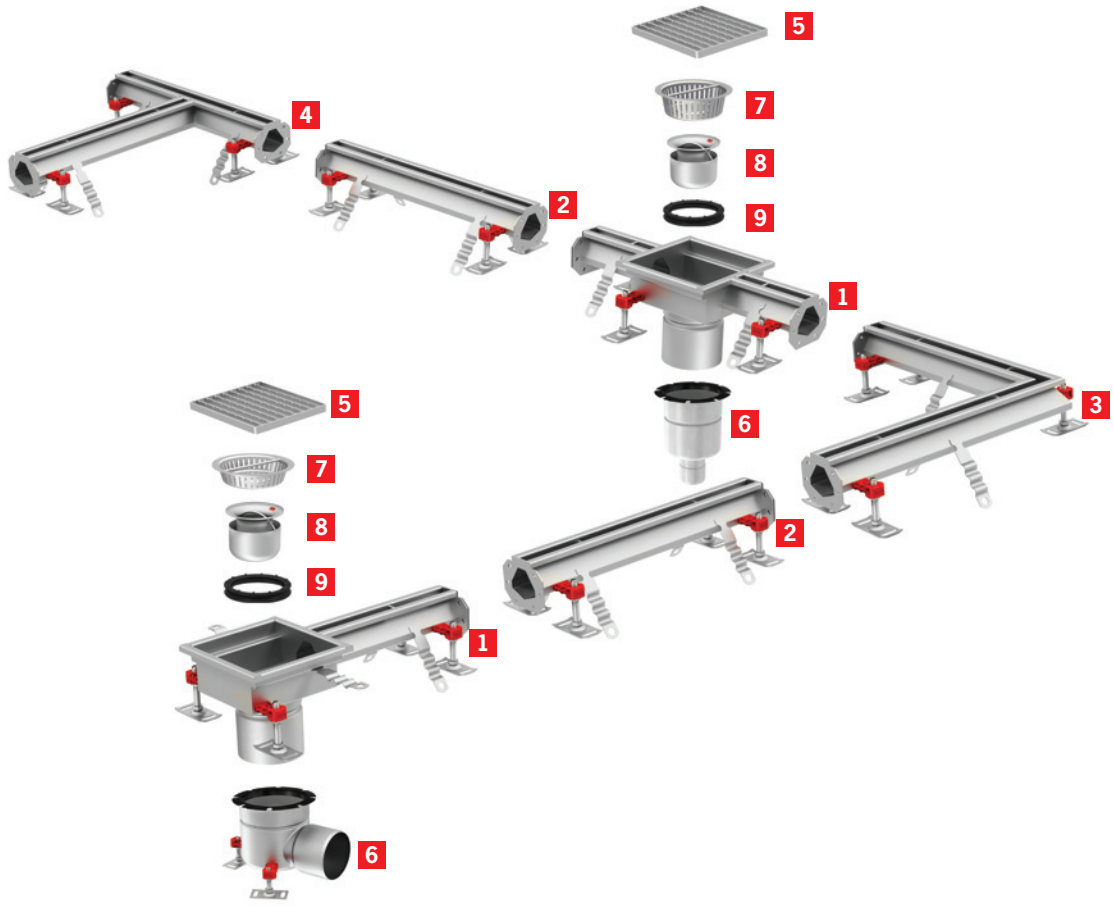
ACO modular slot channel 20

ACO gully
with accessories

ACO modular box channel system overview



ACO modular slot channel system overview



1	Outlet unit	6	Gully
2	Level invert and sloping invert channel	7	Silt basket
3	Corner unit	8	Foul air trap
4	Branch unit	9	Foul air trap support
5	Grating		

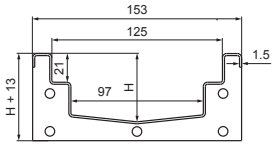
ACO modular box channel 125 - standard articles

Product information

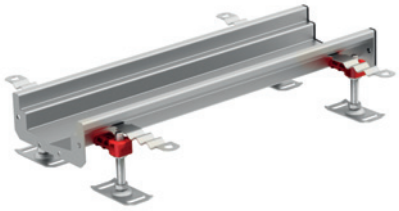
Modular concept allows specification of standard channel units to surround machinery and fit within existing tiling patterns.

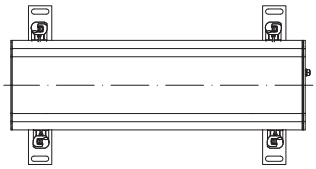
Vee-bottomed (V) profiled channel for enhanced flow efficiency at low flow rates and for improved self cleaning performance.

- Fully compliant to EN 1253
- Fully tested and classified to EN 1433
- Available in 1.4301 (304) or 1.4404 (316L) grades of stainless steel
- Fully pickled and passivated
- Easy and secure telescopic connection with gully
- Cut on demand items available to minimize works on site
- Wide range of gratings for load class up to C 250 (EN 1433)



Level invert channel



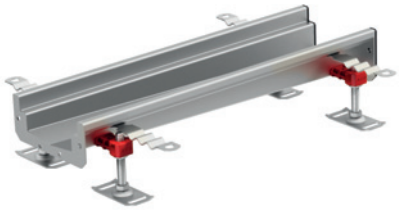


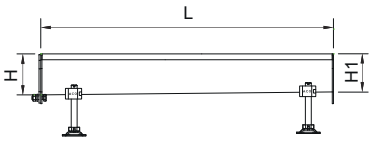
Dimensions		Item number	
L [mm]	H [mm]	1.4301	1.4404
500	50	**105119**	**407211**
	65	**105120**	**407212**
	80	**105121**	**407213**
	95	**105122**	**407214**
	110	**105123**	**407215**
	125	**105124**	**407216**
1000	50	**105127**	**407217**
	65	**105128**	**407218**
	80	**105129**	**407219**
	95	**105130**	**407220**
	110	**105131**	**407221**
	125	**105132**	**407222**
2000	50	**105135**	**407223**
	65	**105136**	**407224**
	80	**105137**	**407225**
	95	**105138**	**407226**
	110	**105139**	**407227**
	125	**105140**	**407228**
3000	50	**105143**	**407229**
	65	**105144**	**407230**
	80	**105145**	**407231**
	95	**105146**	**407232**
	110	**105147**	**407233**
	125	**105148**	**407234**

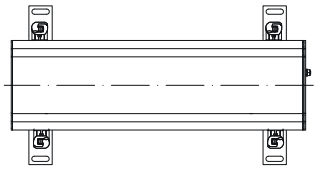
Note: Items are equipped with seal and connecting material on one site.

Gratings for ACO modular box channel 125 ➔ Page 122

Sloping invert channel



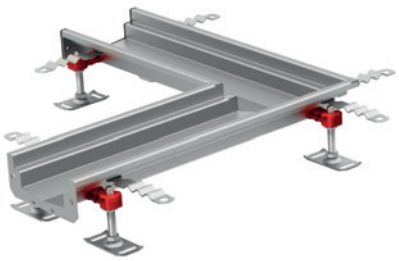


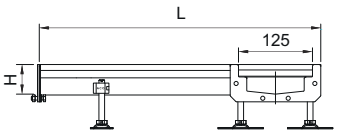


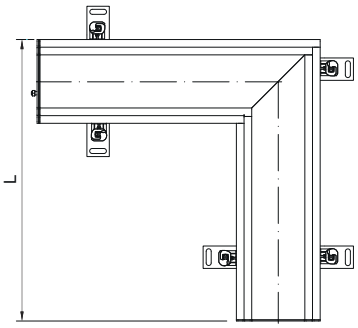
Dimensions			Item number	
L [mm]	H1 [mm]	H2 [mm]	1.4301	1.4404
500	50	65	**105151**	**407235**
	65	80	**105152**	**407236**
1000	50	65	**105155**	**407237**
	65	80	**105156**	**407238**
	80	95	**105157**	**407239**
	95	110	**105158**	**407240**
2000	50	65	**105161**	**407241**
	65	80	**105162**	**407242**
	80	95	**105163**	**407243**
	95	110	**105164**	**407244**
	110	125	**105165**	**407245**
3000	50	65	**105168**	**407246**
	65	80	**105169**	**407247**
	80	95	**105170**	**407248**
	95	110	**105171**	**407249**
	110	125	**105172**	**407250**
6000	50	80	**408821**	**408824**
	65	95	**408822**	**408825**
	95	125	**408823**	**408826**

Note: Items are equipped with seal and connecting material on deeper site.

Corner unit





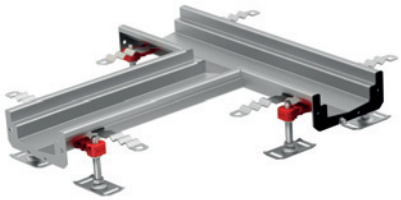


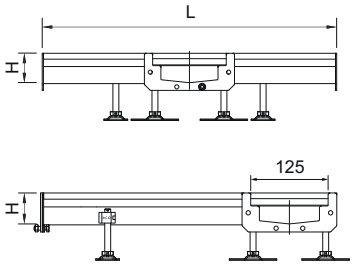
Dimensions		Item number	
L [mm]	H [mm]	1.4301	1.4404
515	50	**409812**	**409818**
	65	**409813**	**409819**
	80	**409814**	**409820**
	95	**409815**	**409821**
	110	**409816**	**409822**
	125	**409817**	**409823**

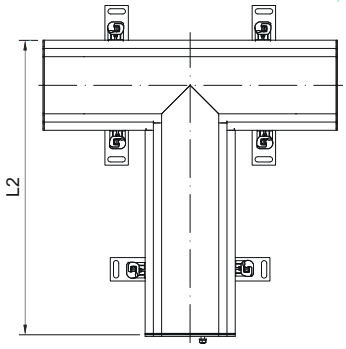
Note: Items are equipped with seal and connecting material on one site.

Gratings for ACO modular box channel 125 ➔ Page 122

Branch unit





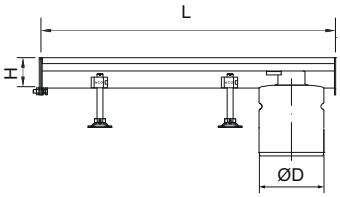


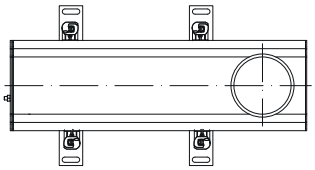
Dimensions			Item number	
L1 [mm]	L2 [mm]	H [mm]	1.4301	1.4404
500	515	50	**409824**	**409830**
		65	**409825**	**409831**
		80	**409826**	**409832**
		95	**409827**	**409833**
		110	**409828**	**409834**
		125	**409829**	**409835**

Note: Items are equipped with seal and connecting material on one site.

Gratings for ACO modular box channel 125 ➔ Page 122

End outlet



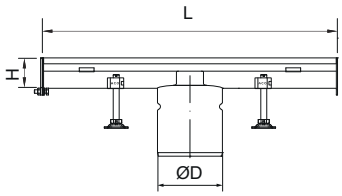


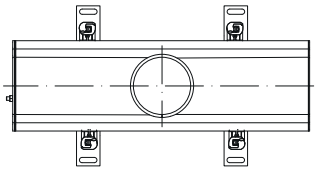
Dimensions		Gully	Outlet diameter	Item number	
L [mm]	H [mm]		ØD [mm]	1.4301	1.4404
500	50	ACO gully EG150	110	**105175**	**407251**
	65			**105176**	**407252**
	80			**105177**	**407253**
	95			**105178**	**407254**
	110			**105179**	**407255**
	125			**105180**	**407256**
1000	50			**105183**	**407257**
	65			**105184**	**407258**
	80			**105185**	**407259**
	95			**105186**	**407260**
	110			**105187**	**407261**
	125			**105188**	**407262**
500	50	ACO hygienic gully 142	125	**415946**	**415991**
	65			**415947**	**415992**
	80			**415948**	**415993**
	95			**415949**	**415994**
	110			**415950**	**415995**
	125			**415951**	**415996**
1000	50			**415952**	**415997**
	65			**415953**	**415998**
	80			**415954**	**415999**
	95			**415955**	**416000**
	110			**415956**	**416001**
	125			**415957**	**416002**
500	50	ACO hygienic gully 157	142	**409732**	**409733**
	65			**409736**	**409737**
	80			**409740**	**409741**
	95			**409744**	**409745**
	110			**409724**	**409725**
	125			**409728**	**409729**
1000	50			**409708**	**409709**
	65			**409712**	**409713**
	80			**409716**	**409717**
	95			**409720**	**409721**
	110			**409700**	**409701**
	125			**409704**	**409705**

Note: Items are without seal and connecting material.

ACO hygienic gully 142 ➔ Page 24
ACO hygienic gully 157 ➔ Page 39
ACO hygienic gully 218 ➔ Page 51
ACO gully EG150 ➔ Page 59 / Accessories ➔ Page 75
Gratings for ACO modular box channel 125 ➔ Page 122
Accessories for ACO modular box channel 125 ➔ Page 126

Centre outlet



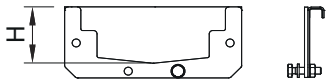


Dimensions		Gully	Outlet diameter	Item number	
L [mm]	H [mm]		ØD [mm]	1.4301	1.4404
500	50	ACO gully EG150	110	**105191**	**407263**
	65			**105192**	**407264**
	80			**105193**	**407265**
	95			**105194**	**407266**
	110			**105195**	**407267**
	125			**105196**	**407268**
1000	50			**105199**	**407269**
	65			**105200**	**407270**
	80			**105201**	**407271**
	95			**105202**	**407272**
	110			**105203**	**407273**
	125			**105204**	**407274**
500	50	ACO hygienic gully 142	125	**415958**	**416003**
	65			**415959**	**416004**
	80			**415960**	**416005**
	95			**415961**	**416006**
	110			**415962**	**416007**
	125			**415963**	**416008**
1000	50			**415964**	**416009**
	65			**415965**	**416010**
	80			**415966**	**416011**
	95			**415967**	**416012**
	110			**415968**	**416013**
	125			**415969**	**416014**
500	50	ACO hygienic gully 157	142	**409734**	**409735**
	65			**409738**	**409739**
	80			**409742**	**409743**
	95			**409746**	**409747**
	110			**409726**	**409727**
	125			**409730**	**409731**
1000	50			**409710**	**409711**
	65			**409714**	**409715**
	80			**409718**	**409719**
	95			**409722**	**409723**
	110			**409702**	**409703**
	125			**409706**	**409707**

Note: Items are without seal and connecting material.

ACO gully EG150 ➔ Page 59 / Accessories ➔ Page 75
ACO hygienic gully 142 ➔ Page 24
ACO hygienic gully 157 ➔ Page 39
Gratings for ACO modular box channel 125 ➔ Page 122
Accessories for ACO modular box channel 125 ➔ Page 126

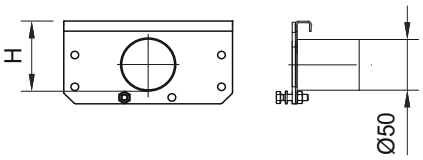
End plate



Dimensions	Item number	
H [mm]	1.4301	1.4404
50	**105100**	**407196**
65	**105101**	**407197**
80	**105102**	**407198**
95	**105103**	**407199**
110	**105104**	**407200**
125	**105105**	**407201**

Note: Items are equipped with seal and connecting material.

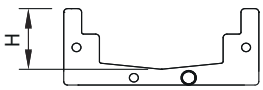
End plate with 50 mm outlet



Dimensions	Item number	
H [mm]	1.4301	1.4404
65	**409114**	**409119**
80	**409115**	**409120**
95	**409116**	**409121**
110	**409117**	**409122**
125	**409118**	**409123**

Note: Items are equipped with seal and connecting material.

Seal rubber



Dimensions	Item number
H [mm]	NBR
50	**413587**
65	**413588**
80	**413589**
95	**413590**
110	**413591**
125	**413592**

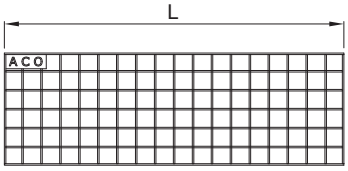
Note: Items include seal and connecting material.

Gratings for ACO modular box channel 125

Product information

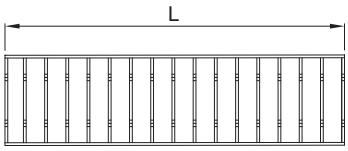
- Fully tested and classified to EN 1433
- Available in 1.4301 (304) or 1.4404 (316L) grades of stainless steel
- Special length 375 mm for branches and corner units
- Slip resistant gratings available for added user safety
- Load classes A 15, B 125 and C 250

ACO mesh grating



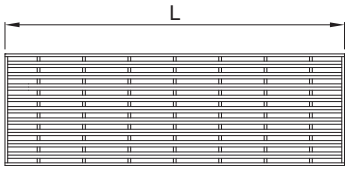
Length L [mm]	Load class	Slip resistant	Material	Item number
375	A 15	No	1.4301	**414132**
			1.4404	**414182**
		Yes	1.4301	**414130**
			1.4404	**414180**
	C 250	No	1.4301	**414133**
			1.4404	**414183**
		Yes	1.4301	**414131**
			1.4404	**414181**
500	A 15	No	1.4301	**21720**
			1.4404	**21725**
		Yes	1.4301	**21710**
			1.4404	**21715**
	C 250	No	1.4301	**21920**
			1.4404	**21925**
		Yes	1.4301	**21910**
			1.4404	**21915**
1000	A 15	No	1.4301	**21620**
			1.4404	**21625**
		Yes	1.4301	**21610**
			1.4404	**21615**
	C 250	No	1.4301	**21820**
			1.4404	**21825**
		Yes	1.4301	**21810**
			1.4404	**21815**

ACO ladder grating



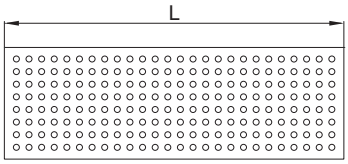
Length L [mm]	Load class	Slip resistant	Material	Item number
375	C 250	Yes	1.4301	**414134**
			1.4404	**414184**
500	C 250	Yes	1.4301	**21740**
			1.4404	**21745**
1000	C 250	Yes	1.4301	**21741**
			1.4404	**21746**

ACO heelsafe grating



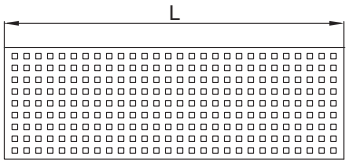
Length L [mm]	Load class	Slip resistant	Material	Item number
375	B 125	No	1.4301	**414135**
			1.4404	**414185**
500	B 125	No	1.4301	**96819**
			1.4404	**401238**
1000	B 125	No	1.4301	**96818**
			1.4404	**401237**

ACO perforated grating



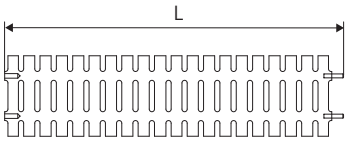
Length L [mm]	Load class	Slip resistant	Material	Item number
375	A 15	No	1.4301	**414136**
			1.4404	**414186**
	B 125	No	1.4301	**414137**
			1.4404	**414187**
500	A 15	No	1.4301	**21760**
			1.4404	**21765**
	B 125	No	1.4301	**21960**
			1.4404	**21965**
1000	A 15	No	1.4301	**21660**
			1.4404	**21665**
	B 125	No	1.4301	**21860**
			1.4404	**21865**

ACO quadrato grating



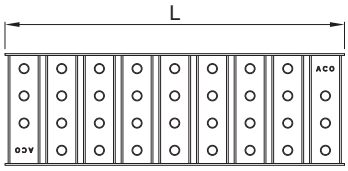
Length L [mm]	Load class	Slip resistant	Material	Item number
375	A 15	No	1.4301	**414138**
			1.4404	**414188**
500	A 15	No	1.4301	**105528**
			1.4404	**407925**
1000	A 15	No	1.4301	**105527**
			1.4404	**407924**

ACO plastic grating



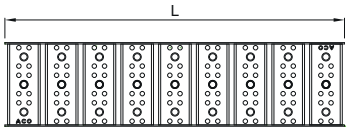
Length L [mm]	Load class	Slip resistant	Material	Item number
500	A 15	No	-	**21790**
1000	A 15	No	-	**21690**

ACO multi-slot 5 grating



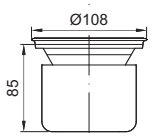
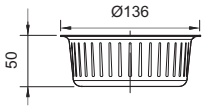
Length L [mm]	Load class	Slip resistant	Material	Item number
375	A 15	Yes	1.4301	**414139**
			1.4404	**414189**
500	A 15	Yes	1.4301	**409290**
			1.4404	**409291**
	B 125	Yes	1.4301	**409294**
			1.4404	**409295**
1 000	A 15	Yes	1.4301	**409286**
			1.4404	**409287**
	B 125	Yes	1.4301	**409236**
			1.4404	**409237**
500	A 15	Yes	1.4301	**409290**
			1.4404	**409291**
	B 125	Yes	1.4301	**409294**
			1.4404	**409295**
1 000	A 15	Yes	1.4301	**409286**
			1.4404	**409287**
	B 125	Yes	1.4301	**409236**
			1.4404	**409237**

ACO multi-slot 8 grating



Length L [mm]	Load class	Slip resistant	Material	Item number
500	A 15	Yes	1.4301	**415739**
			1.4404	**415740**
	B 125	Yes	1.4301	**415747**
			1.4404	**415748**
	C 250	Yes	1.4301	**415753**
			1.4404	**415754**
1 000	A 15	Yes	1.4301	**415735**
			1.4404	**415736**
	B 125	Yes	1.4301	**415743**
			1.4404	**415744**
	C 250	Yes	1.4301	**415751**
			1.4404	**415752**

Accessories for ACO modular box channel 125

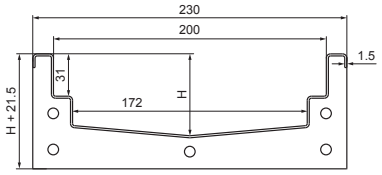
	Description	Used with	Material	Item number
	Sieve ■ Stainless steel	■ ACO modular box channel 125 with outlet 110 mm	1.4301	**97235**
			1.4404	**97285**
	Foul air trap ■ Stainless steel ■ Water seal 50 mm	■ ACO modular box channel 125 with outlet 110 mm	1.4301	**97217**
			1.4404	**97267**
	Silt basket ■ Stainless steel ■ 0,5 litre capacity	■ ACO modular box channel 125 with outlet 125 and 142 mm	1.4301	**414339**
			1.4404	**414340**

ACO modular box channel 200 - standard articles

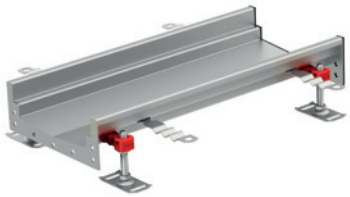
Product information

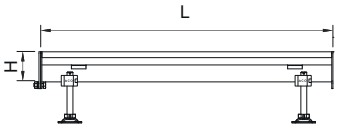
Modular concept allows specification of standard channel units to surround machinery and fit within existing tiling patterns.

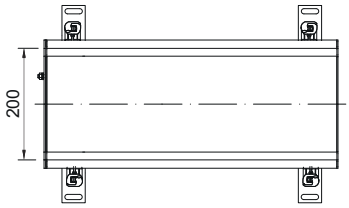
- Fully compliant to EN 1253
- Fully tested and classified to EN 1433
- Available in 1.4301 (304) or 1.4404 (316L) grades of stainless steel
- Fully pickled and passivated
- Easy and secure telescopic connection with gully
- Cut on demand items available to minimize works on site
- Wide range of gratings for load class up to C 250 (EN 1433)



Level invert channel





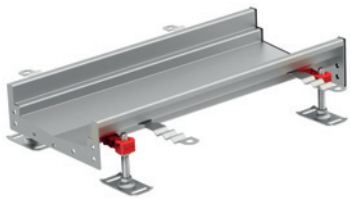


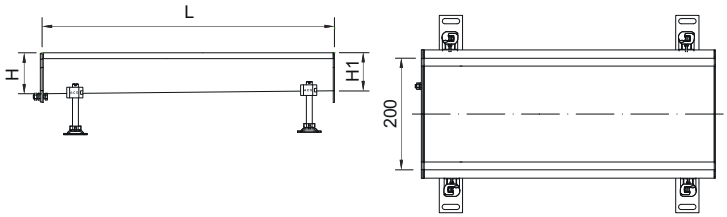
Dimensions		Item number	
L [mm]	H [mm]	1.4301	1.4404
500	60	**409072**	**409050**
	70	**409047**	**409051**
	80	**409048**	**409052**
	100	**409049**	**409053**
1000	60	**401859**	**401860**
	70	**409054**	**409057**
	80	**409055**	**409058**
	100	**409056**	**409059**
2000	60	**401875**	**401876**
	70	**409060**	**409063**
	80	**409061**	**409064**
	100	**409062**	**409065**
3000	60	**401895**	**401896**
	70	**409066**	**409069**
	80	**409067**	**409070**
	100	**409068**	**409071**

Note: Items are equipped with seal and connecting material on one site.

Gratings for ACO modular box channel 200 ➔ Page 135

Sloping invert channel



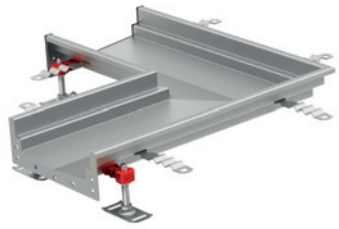


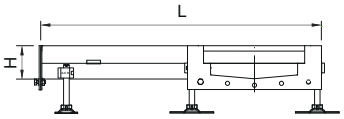
Dimensions			Item number	
L [mm]	H1 [mm]	H2 [mm]	1.4301	1.4404
500	55	60	**401855**	**401856**
1000	60	70	**401871**	**401872**
	70	80	**402464**	**402465**
	80	90	**402466**	**402467**
	90	100	**402468**	**402469**
	100	110	**402470**	**402471**
2000	60	70	**401887**	**401888**
	70	80	**402472**	**402473**
	80	90	**402474**	**402475**
	90	100	**402476**	**402477**
	100	110	**402478**	**402479**
	110	120	**402480**	**402481**
3000	60	80	**402482**	**402483**
	80	100	**402484**	**402485**
	100	120	**402486**	**402487**
	120	140	**402488**	**402489**
6000	60	100	**408827**	**408829**
	100	140	**408828**	**408830**

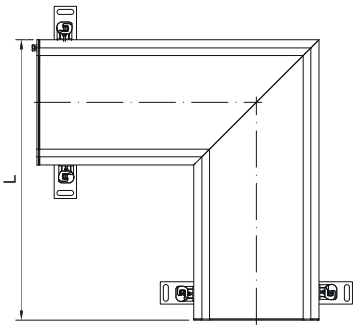
Note: Items are equipped with seal and connecting material on deeper site.

Gratings for ACO modular box channel 200 ➔ Page 135

Corner unit



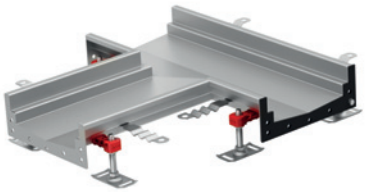


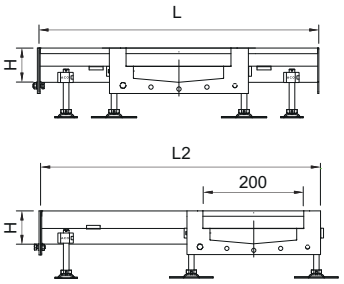


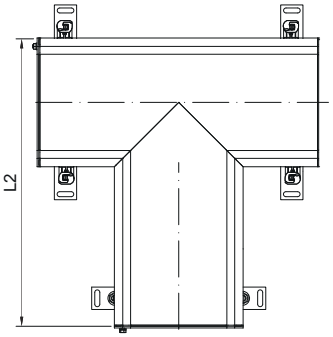
Dimensions		Item number	
L [mm]	H [mm]	1.4301	1.4404
515	60	**401921**	**401922**
	80	**402490**	**402491**
	100	**402492**	**402493**

Note: Items are equipped with seal and connecting material on one site.

Branch unit





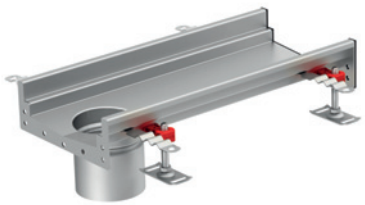


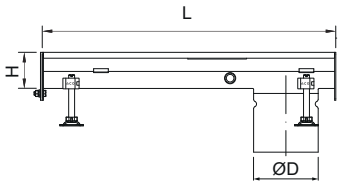
Dimensions			Item number	
L [mm]	H1 [mm]	H2 [mm]	1.4301	1.4404
500	515	60	**401933**	**401934**
		80	**402494**	**402495**
		100	**402496**	**402497**

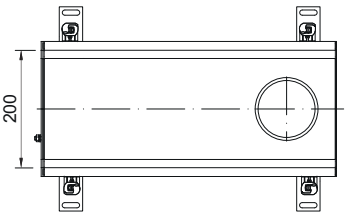
Note: Items are equipped with seal and connecting material on one site.

Gratings for ACO modular box channel 200 ➔ Page 135

End outlet





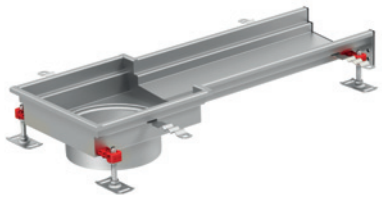


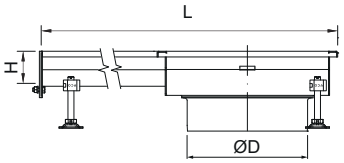
Dimensions		Gully	Outlet diameter	Item number	
L [mm]	H [mm]		ØD [mm]	1.4301	1.4404
500	60	ACO gully EG150	110	**414275**	**414283**
	70			**414276**	**414284**
	80			**414277**	**414285**
	90			**414278**	**414286**
	100			**414279**	**414287**
	110			**414280**	**414288**
	120			**414281**	**414289**
	140			**414282**	**414290**
1000	60			**414291**	**414299**
	70			**414292**	**414300**
	80			**414293**	**414301**
	90			**414294**	**414302**
	100			**414295**	**414303**
	110			**414296**	**414304**
	120			**414297**	**414305**
	140			**414298**	**414306**
500	60	ACO hygienic gully 157	142	**409900**	**409908**
	70			**409901**	**409909**
	80			**409902**	**409910**
	90			**409903**	**409911**
	100			**409904**	**409912**
	110			**409905**	**409913**
	120			**409906**	**409914**
	140			**409907**	**409915**
1000	60			**409932**	**409940**
	70			**409933**	**409941**
	80			**409934**	**409942**
	90			**409935**	**409943**
	100			**409936**	**409944**
	110			**409937**	**409945**
	120			**409938**	**409946**
	140			**409939**	**409947**

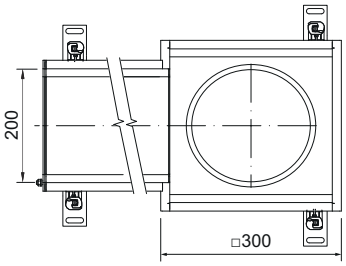
Note: Items are without seal and connecting material.

ACO hygienic gully 157 ➔ Page 39
ACO gully EG150 ➔ Page 59 / Accessories ➔ Page 75
Gratings for ACO modular box channel 200 ➔ Page 135
Accessories for ACO modular box channel 125 ➔ Page 138

End outlet





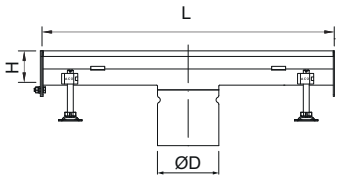


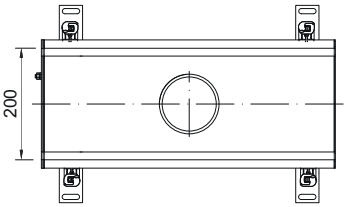
Dimensions		Gully	Outlet diameter	Item number	
L [mm]	H [mm]		ØD [mm]	1.4301	1.4404
785	60	ACO hygienic gully 218	200	**414259**	**414267**
	70			**414260**	**414268**
	80			**414261**	**414269**
	90			**414262**	**414270**
	100			**414263**	**414271**
	110			**414264**	**414272**
	120			**414265**	**414273**
	140			**414266**	**414274**

Note: Items are without seal and connecting material.

ACO hygienic gully 218 ➔ Page 51
ACO gully EG150 ➔ Page 59 / Accessories ➔ Page 75
Gratings for ACO modular box channel 200 ➔ Page 135
Accessories for ACO modular box channel 125 ➔ Page 138

Centre outlet



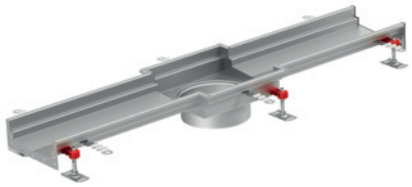


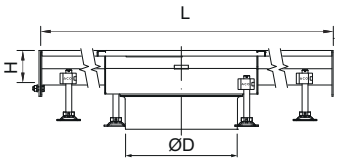
Dimensions		Gully	Outlet diameter	Item number	
L [mm]	H [mm]		ØD [mm]	1.4301	1.4404
500	60	ACO gully EG150	110	**414307**	**414315**
	70			**414308**	**414316**
	80			**414309**	**414317**
	90			**414310**	**414318**
	100			**414311**	**414319**
	110			**414312**	**414320**
	120			**414313**	**414321**
	140			**414314**	**414322**
1000	60			**414323**	**414331**
	70			**414324**	**414332**
	80			**414325**	**414333**
	90			**414326**	**414334**
	100			**414327**	**414335**
	110			**414328**	**414336**
	120			**414329**	**414337**
	140			**414330**	**414338**
500	60	ACO hygienic gully 157	142	**409916**	**409924**
	70			**409917**	**409925**
	80			**409918**	**409926**
	90			**409919**	**409927**
	100			**409920**	**409928**
	110			**409921**	**409929**
	120			**409922**	**409930**
	140			**409923**	**409931**
1000	60			**409948**	**409956**
	70			**409949**	**409957**
	80			**409950**	**409958**
	90			**409951**	**409959**
	100			**409952**	**409960**
	110			**409953**	**409961**
	120			**409954**	**409962**
	140			**409955**	**409963**

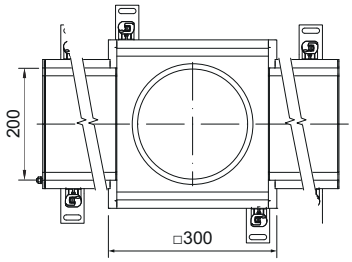
Note: Items are without seal and connecting material.

ACO gully EG150 ➔ Page 59 / Accessories ➔ Page 75
ACO hygienic gully 157 ➔ Page 39
Gratings for ACO modular box channel 200 ➔ Page 135
Accessories for ACO modular box channel 200 ➔ Page 138

Centre outlet



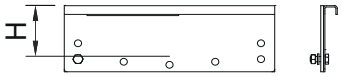




Dimensions		Gully	Outlet diameter	Item number	
L [mm]	H [mm]		ØD [mm]	1.4301	1.4404
1270	60	ACO hygienic gully 218	200	**414243**	**414251**
	70			**414244**	**414252**
	80			**414245**	**414253**
	90			**414246**	**414254**
	100			**414247**	**414255**
	110			**414248**	**414256**
	120			**414249**	**414257**
	140			**414250**	**414258**

Note: Items are without seal and connecting material.

End plate



Dimensions	Item number	
[mm]	1.4301	1.4404
55	**402683**	**402684**
60	**402028**	**402029**
70	**402030**	**402031**
80	**402514**	**402515**
90	**402032**	**402033**
100	**402516**	**402517**
110	**402518**	**402519**
120	**402036**	**402037**
140	**402520**	**402521**

Note: Items are equipped with seal and connecting material.

ACO hygienic gully 218 ➔ Page 51
Gratings for ACO modular box channel 200 ➔ Page 135
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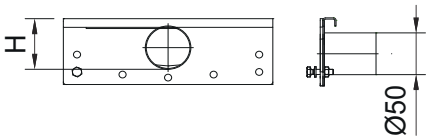
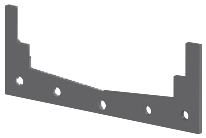
End plate with 50 mm outlet

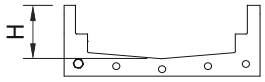


Dimensions	Item number	
H [mm]	1.4301	1.4404
55	**402001**	**402002**
60	**402003**	**402004**
70	**402005**	**402006**
80	**402034**	**402035**
90	**402007**	**402008**
100	**402024**	**402025**
110	**402020**	**402021**
120	**402022**	**402023**
140	**401999**	**402000**

Note: Items are equipped with seal and connecting material.

Seal rubber





Dimensions	Item number
H [mm]	NBR
60	**413593**
70	**413594**
80	**413595**
90	**413596**
100	**413597**
110	**413598**
120	**413599**
140	**413600**

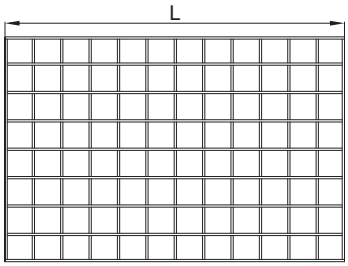
Note: Items include seal and connecting material.

Gratings for ACO modular box channel 200

Product information

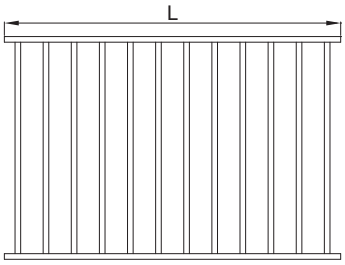
- Fully tested and classified to EN 1433
- Available in 1.4301 (304) or 1.4404 (316L) grades of stainless steel
- Special length 300 mm for branches and corner units
- Slip resistant gratings available for added user safety
- Load class A 15

ACO mesh grating



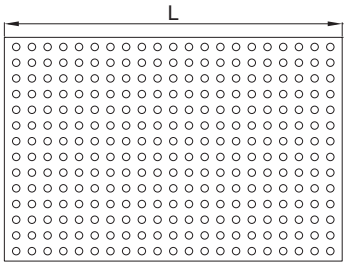
Length L [mm]	Load class	Slip resistant	Material	Item number
300	A 15	No	1.4301	**414141**
			1.4404	**414191**
		Yes	1.4301	**414140**
			1.4404	**414190**
500	A 15	No	1.4301	**92207**
			1.4404	**92257**
		Yes	1.4301	**92200**
			1.4404	**92250**
1000	A 15	No	1.4301	**92208**
			1.4404	**92258**
		Yes	1.4301	**92201**
			1.4404	**92251**

ACO ladder grating



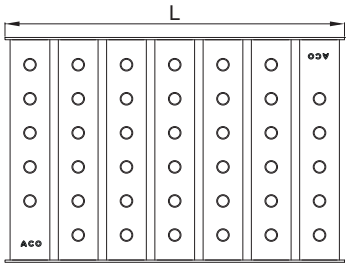
Length L [mm]	Load class	Slip resistant	Material	Item number
300	C 250	No	1.4301	**414142**
			1.4404	**414192**
500	C 250	No	1.4301	**92214**
			1.4404	**92264**
1000	C 250	No	1.4301	**92215**
			1.4404	**92265**

ACO perforated grating



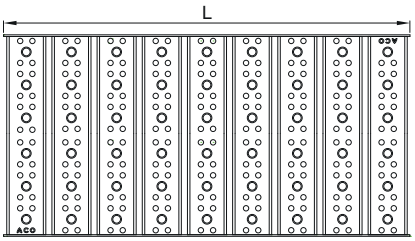
Length L [mm]	Load class	Slip resistant	Material	Item number
300	A 15	No	1.4301	**414143**
			1.4404	**414193**
500	A 15	No	1.4301	**402689**
			1.4404	**405188**
1000	A 15	No	1.4301	**402688**
			1.4404	**405187**

ACO multi-slot 5 grating



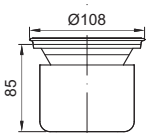
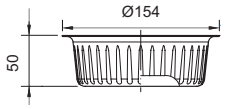
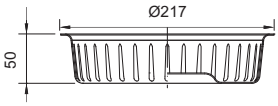
Length L [mm]	Load class	Slip resistant	Material	Item number
300	A 15	No	1.4301	**414145**
			1.4404	**414195**
500	A 15	No	1.4301	**409292**
			1.4404	**409293**
	B 125	No	1.4301	**409296**
			1.4404	**409297**
1000	A 15	No	1.4301	**409288**
			1.4404	**409289**
	B 125	No	1.4301	**409240**
			1.4404	**409241**

ACO multi-slot 8 grating



Length L [mm]	Load class	Slip resistant	Material	Item number
500	A 15	No	1.4301	**415741**
			1.4404	**415742**
	B 125	No	1.4301	**415749**
			1.4404	**415750**
1000	A 15	No	1.4301	**415737**
			1.4404	**415738**
	B 125	No	1.4301	**415745**
			1.4404	**415746**

Accessories for ACO modular box channel 200

	Description	Used with	Material	Item number
	Sieve ■ Stainless steel	■ ACO modular box channel 200 with outlet 110 mm	1.4301	**97235**
			1.4404	**97285**
	Foul air trap ■ Stainless steel ■ Water seal 50 mm	■ ACO modular box channel 200 with outlet 110 mm	1.4301	**97217**
			1.4404	**97267**
	Silt basket ■ Stainless steel ■ 0,6 litre capacity	■ ACO modular box channel 200 with outlet 142 mm	1.4301	**408202**
			1.4404	**408212**
	Silt basket ■ Stainless steel ■ 1,4 litre capacity	■ ACO modular box channel 200 with outlet 200 mm	1.4301	**408222**
			1.4404	**408232**

ACO modular slot channel 20 - standard articles

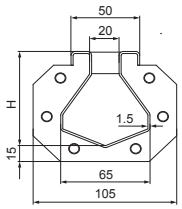
Product information

Ideal for wash-down applications or as a water break between designed wet and dry areas.

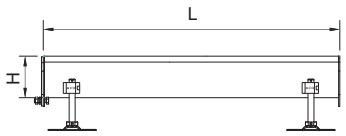
Modular concept allows specification of standard channel units to surround machinery and fit within existing tiling patterns.

Vee-bottomed (V) profiled channel for enhanced flow efficiency at low flow rates and for improved self cleaning performance.

- Fully compliant to EN 1253
- Fully tested and classified to EN 1433
- Available in 1.4301 (304) or 1.4404 (316L) grades of stainless steel, Fully pickled and passivated
- Wide range of gratings for load class up to C 250 (EN 1433)



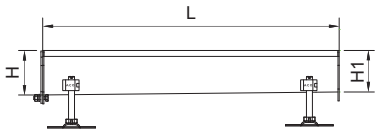
Level invert channel



Dimensions		Item number	
L [mm]	H [mm]	1.4301	1.4404
500	70	**92300**	**92350**
	90	**92301**	**92351**
	120	**92302**	**92352**
1000	70	**92305**	**92355**
	90	**92306**	**92356**
	120	**92307**	**92357**
2000	70	**92310**	**92360**
	90	**92311**	**92361**
	120	**92312**	**92362**
3000	70	**92316**	**92366**
	90	**92317**	**92367**
	120	**92318**	**92368**

Note: Items are equipped with seal and connecting material on one site.

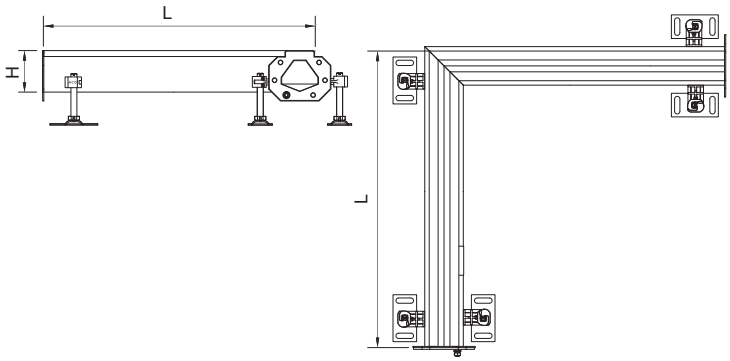
Sloping invert channel



Dimensions			Item number	
L [mm]	H1 [mm]	H2 [mm]	1.4301	1.4404
500	70	75	**92303**	**92353**
	75	80	**92304**	**92354**
1000	70	75	**92308**	**92358**
	75	80	**92309**	**92359**
2000	70	80	**92313**	**92363**
	80	90	**92314**	**92364**
	90	100	**92315**	**92365**
3000	70	80	**92319**	**92369**
	80	90	**92320**	**92370**
	90	100	**92321**	**92371**
	100	110	**92322**	**92372**
	110	120	**92323**	**92373**
6000	70	90	**409014**	**409015**
	90	110	**409016**	**409017**

Note: Items are equipped with seal and connecting material on deeper site.

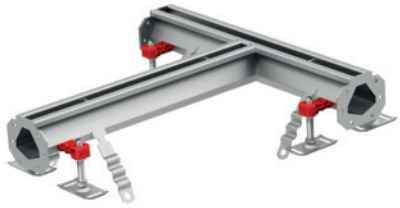
Corner unit

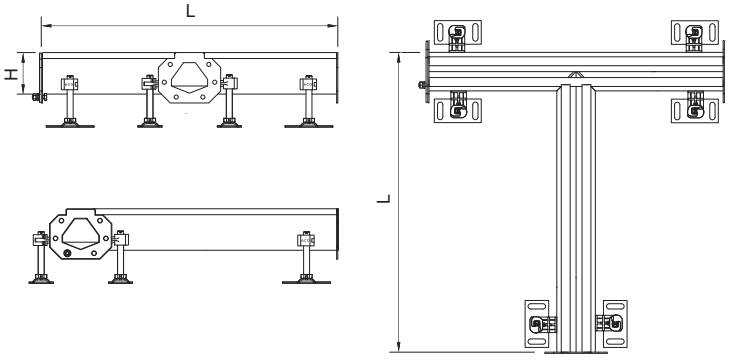


Dimensions		Item number	
L [mm]	H [mm]	1.4301	1.4404
500	70	**92338**	**92388**
	75	**92339**	**92389**
	80	**92340**	**92390**
	90	**92341**	**92391**
	100	**92342**	**92392**
	110	**92343**	**92393**
	120	**92344**	**92394**

Note: Items are equipped with seal and connecting material on one site.

Branch unit

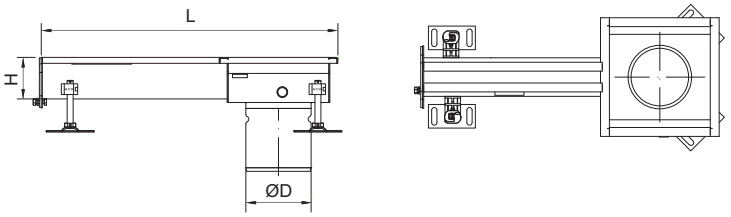




Dimensions		Item number	
L [mm]	H [mm]	1.4301	1.4404
500	70	**92345**	**92395**
	75	**92346**	**92396**
	80	**92347**	**92397**
	90	**92348**	**92398**
	100	**92349**	**92399**
	110	**92400**	**92450**
	120	**92401**	**92451**

Note: Items are equipped with seal and connecting material on one site.

End outlet

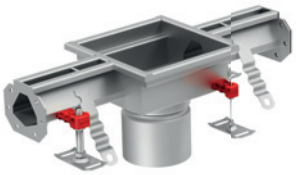


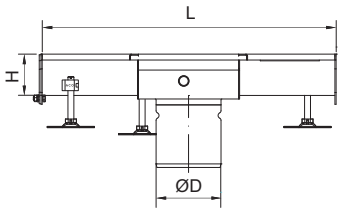
Dimensions		Gully	Gully top	Outlet diameter	Item number	
L [mm]	H [mm]		[mm]	ØD [mm]	1.4301	1.4404
500	70	ACO gully EG150	200 x 200	110	**414341**	**414348**
	75				**414342**	**414349**
	80				**414343**	**414350**
	90				**414344**	**414351**
	100				**414345**	**414352**
	110				**414346**	**414353**
	120				**414347**	**414354**
	70	ACO hygienic gully 142	200 x 200	125	**415925**	**415970**
	75				**415925**	**415971**
	80				**415927**	**415972**
	90				**415928**	**415973**
	100				**415929**	**415974**
	110				**415930**	**415975**
	120				**415931**	**415976**
	70	ACO hygienic gully 157	250 x 250	142	**414201**	**414208**
	75				**414202**	**414209**
	80				**414203**	**414210**
	90				**414204**	**414211**
	100				**414205**	**414212**
	110				**414206**	**414213**
	120				**414207**	**414214**

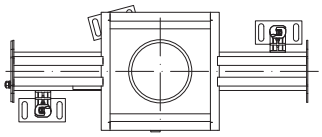
Note: Items are without seal and connecting material.

ACO gully EG150 ➔ Page 59 / Accessories ➔ Page 75
ACO hygienic gully 142 ➔ Page 24
ACO hygienic gully 157 ➔ Page 39
Gratings for ACO modular slot channel 20 ➔ Page 61
Accessories for ACO modular slot channel 20 ➔ Page 144

Centre outlet







Dimensions		Gully	Gully top	Outlet diameter	Item number	
L [mm]	H [mm]		[mm]	ØD [mm]	1.4301	1.4404
500	70	ACO gully EG150	200 x 200	110	**414355**	**414362**
	75				**414356**	**414363**
	80				**414357**	**414364**
	90				**414358**	**414365**
	100				**414359**	**414366**
	110				**414360**	**414367**
	120				**414361**	**414368**
1000	70				**414369**	**414376**
	75				**414370**	**414377**
	80				**414371**	**414378**
	90				**414372**	**414379**
	100				**414373**	**414380**
	110				**414374**	**414381**
	120				**414375**	**414382**
500	70	ACO hygienic gully 142	200 x 200	125	**415932**	**415977**
	75				**415933**	**415978**
	80				**415934**	**415979**
	90				**415935**	**415980**
	100				**415936**	**415981**
	110				**415937**	**415982**
	120				**415938**	**415983**
1000	70				**415939**	**415984**
	75				**415940**	**415985**
	80				**415941**	**415986**
	90				**415942**	**415987**
	100				**415943**	**415988**
	110				**415944**	**415989**
	120				**415945**	**415990**
500	70	ACO hygienic gully 157	250 x 250	142	**414215**	**414222**
	75				**414216**	**414223**
	80				**414217**	**414224**
	90				**414218**	**414225**
	100				**414219**	**414226**
	110				**414220**	**414227**
	120				**414221**	**414228**
1000	70				**414229**	**414236**
	75				**414230**	**414237**
	80				**414231**	**414238**
	90				**414232**	**414239**
	100				**414233**	**414240**
	110				**414234**	**414241**
	120				**414235**	**414242**

Note: Items are without seal and connecting material.

ACO gully EG150 ➔ Page 59 / Accessories ➔ Page 75
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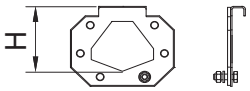
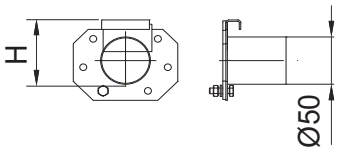
End plate



Dimensions	Item number	
H [mm]	1.4301	1.4404
70	**92324**	**92374**
75	**92325**	**92375**
80	**92326**	**92376**
90	**92327**	**92377**
100	**92328**	**92378**
110	**92329**	**92379**
120	**92330**	**92380**

Note: Items are equipped with seal and connecting material.

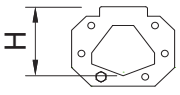
End plate with 50 mm outlet



Dimensions	Item number	
H [mm]	1.4301	1.4404
70	**92331**	**92381**
75	**92332**	**92382**
80	**92333**	**92383**
90	**92334**	**92384**
100	**92335**	**92385**
110	**92336**	**92386**
120	**92337**	**92387**

Note: Items are equipped with seal and connecting material.

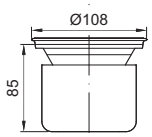
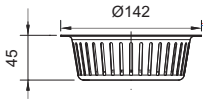
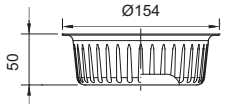
Seal rubber



Dimensions	Item number
H [mm]	NBR
70	**413601**
75	**413602**
80	**413603**
90	**413604**
100	**413605**
110	**413606**
120	**413607**

Note: Items include seal and connecting material.

Accessories for ACO modular slot channel 20

	Description	Used with	Material	Item number
	Sieve ■ Stainless steel	■ ACO modular slot channel 20 with outlet 110 mm	1.4301	**97235**
			1.4404	**97285**
	Foul air trap ■ Stainless steel ■ Water seal 50 mm	■ ACO modular slot channel 20 with outlet 110 mm	1.4301	**97217**
			1.4404	**97267**
	Silt basket ■ Stainless steel ■ 0,5 litre capacity	■ ACO modular slot channel 20 with outlet 125 mm	1.4301	**414739**
			1.4404	**414839**
	Silt basket ■ Stainless steel ■ 0,6 litre capacity	■ ACO modular slot channel 20 with outlet 142 mm	1.4301	**408202**
			1.4404	**408212**

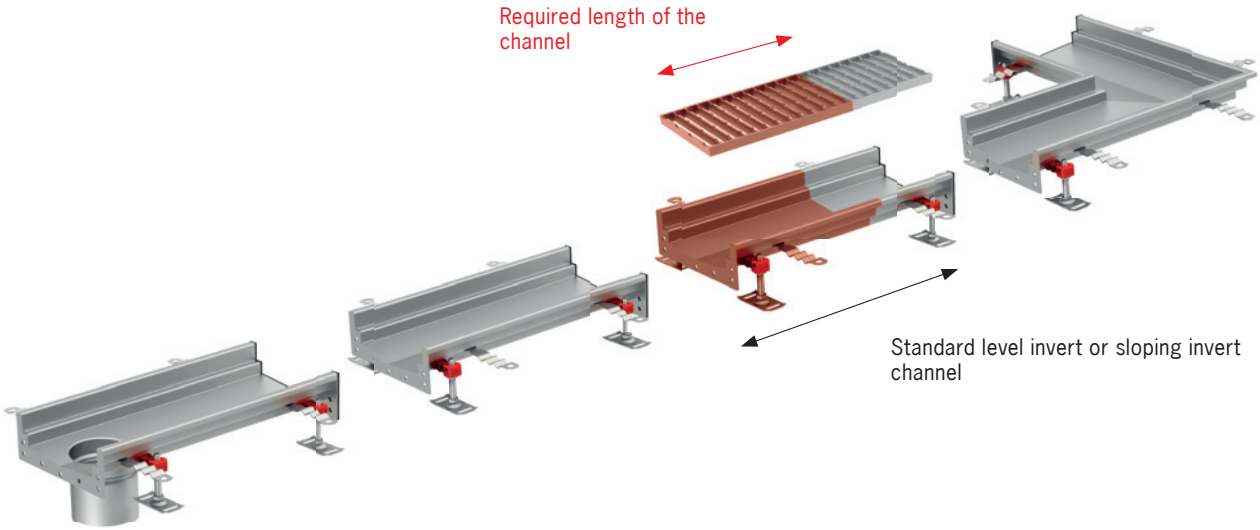
ACO modular channel - semi-standard

Product information

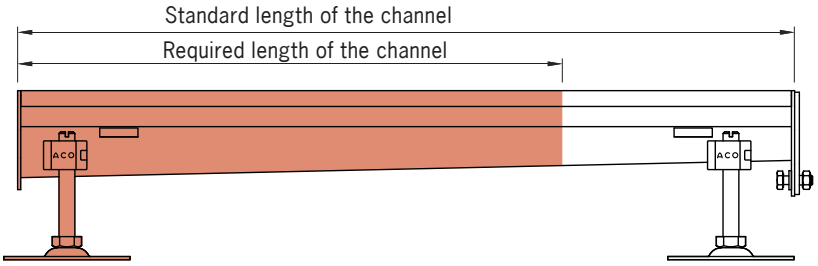
Semi-standard items offer/provide easy and fast way to get a slot or box channel of a special length to complete a linear drainage project with standard stock items. Simply specify the length you need.

How to specify semi-standard items:
Specify the part number from which the semi-standard item will be produced.

How it works:
The semi-standard item is produced from a standard stock item (level invert and sloping invert channels only) which is shortened according to customer's need. The shortened item is then equipped with flange and sealing; to fit the following channel in the drainage project. Grating of the same length is also produced.



- Specify the required length of the item (length always starts at lower height of channel if channel with invert slope used).

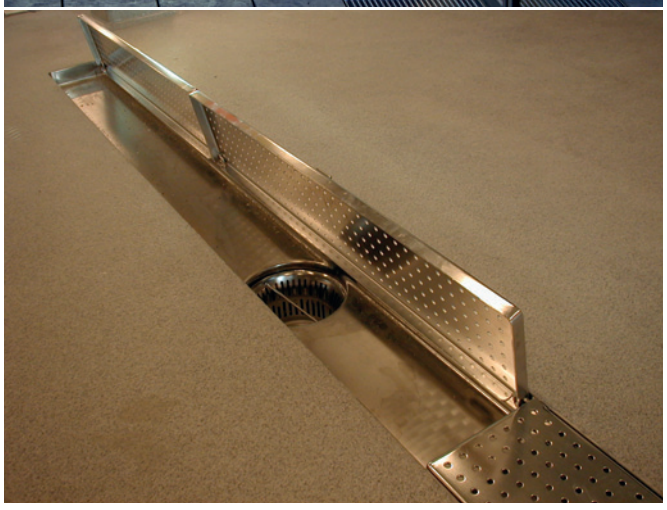


ACO design channel

Product information

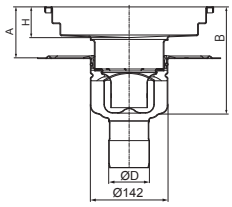
Even atypical solutions can be easily realised using stainless steel. The broad spectrum of finishes and shapes gives complete design freedom.

Customers' individual channel designs will be managed by our expert team with tailor-made services for specific projects with full proposal information, CAD layout drawings and assembly instructions.
Contact our Sales/Technical department team and we will help you with your project.

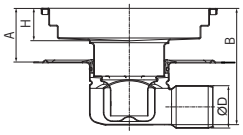


Flow rates and Construction heights

ACO channel, ACO hygienic gully 142



Outlet diameter	Outlet position	Flow rate [l/s]	
ØD		H = 60 mm	
		A min. = 85	A max. = 115
		B min. = 194	B max. = 224
75	Vertical	1.4	1.7
110		1.6	1.9

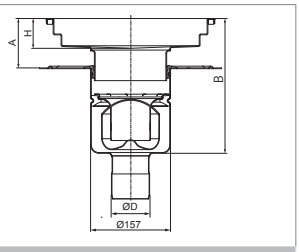


Outlet diameter	Outlet position	Flow rate [l/s]	
ØD		H = 60 mm	
		A min. = 75	A max. = 115
		B min. = 185	B max. = 245
75	Horizontal	1.4	1.7
110		1.6	1.9

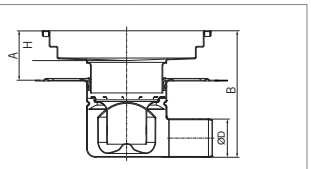
Notes:
A min. and B min. values can be reduced by 15 mm if earth screw is removed and channel outlet spigot shortened. Please be aware that channel outlet pipe shortening affects the A max. and B max. values.

Flow rates measured according to EN 1253. Flow rate performance without silt basket (flow rates with empty silt basket are approximately 15% lower than the values stated)

ACO channel, ACO hygienic gully 157



Outlet diameter	Outlet position	Flow rate [l/s]	
ØD		H = 60 mm	
		A min. = 85	A max. = 115
		B min. = 232	B max. = 262
75	Vertical	2.9	3.1
110		3.9	4.2

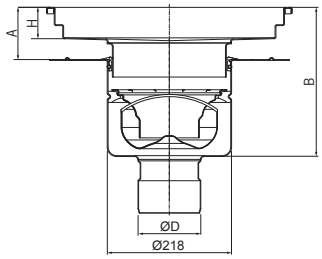


Outlet diameter	Outlet position	Flow rate [l/s]	
ØD		H = 60 mm	
		A min. = 75	A max. = 115
		B min. = 242	B max. = 285
75	Horizontal	2.8	3.1
110		3.2	3.9

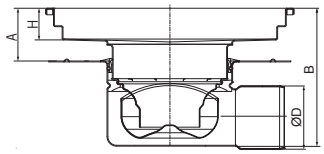
Notes:
A min. and B min. values can be reduced by 15 mm if earth screw is removed and channel outlet spigot shortened. Please be aware that channel outlet pipe shortening affects the A max. and B max. values.

Flow rates measured according to EN 1253. Flow rate performance without silt basket (flow rates with empty silt basket are approximately 15% lower than the values stated)

ACO channel, ACO hygienic gully 218



Outlet diameter	Outlet position	Flow rate [l/s]									
ØD		H = 60 mm		H = 80 mm		H = 100 mm		H = 150 mm		H = 200 mm	
		A min. = 75 [mm]	A max. = 115 [mm]	A min. = 95 [mm]	A max. = 135 [mm]	A min. = 115 [mm]	A max. = 155 [mm]	A min. = 165 [mm]	A max. = 205 [mm]	A min. = 215 [mm]	A max. = 255 [mm]
		B min. = 245 [mm]	B max. = 285 [mm]	B min. = 265 [mm]	B max. = 305 [mm]	B min. = 285 [mm]	B max. = 325 [mm]	B min. = 335 [mm]	B max. = 375 [mm]	B min. = 385 [mm]	B max. = 425 [mm]
110	Vertical	5.4	5.6	5.6	5.8	5.7	6.0	5.9	6.4	6.4	6.4
160		5.4	5.6	5.6	5.8	5.7	6.0	5.9	6.4	6.4	6.4



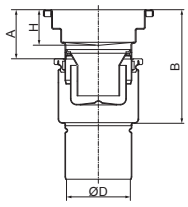
Outlet diameter	Outlet position	Flow rate [l/s]									
ØD		H = 60 mm		H = 80 mm		H = 100 mm		H = 150 mm		H = 200 mm	
		A min. = 85 [mm]	A max. = 115 [mm]	A min. = 105 [mm]	A max. = 135 [mm]	A min. = 125 [mm]	A max. = 155 [mm]	A min. = 175 [mm]	A max. = 205 [mm]	A min. = 225 [mm]	A max. = 255 [mm]
		B min. = 235 [mm]	B max. = 265 [mm]	B min. = 255 [mm]	B max. = 285 [mm]	B min. = 275 [mm]	B max. = 305 [mm]	B min. = 325 [mm]	B max. = 355 [mm]	B min. = 375 [mm]	B max. = 405 [mm]
110	Horizontal	4.5	4.7	4.8	4.9	4.9	5.1	5.0	5.6	5.6	6.4

Notes:
A min. and B min. values can be reduced by 15 mm if earth screw is removed and channel outlet spigot shortened. Please be aware that channel outlet pipe shortening affects the A max. and B max. values.

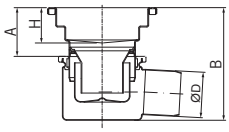
Flow rates measured according to EN 1253. Flow rate performance without silt basket (flow rates with empty silt basket are approximately 15% lower than the values stated)

Flow rates and Construction heights

ACO channel, ACO gully EG150



Outlet diameter	Outlet position	Flow rate [l/s]	
ØD		H = 60 mm	
		A min. = 60	A max. = 85
		B min. = 165	B max. = 190
75	Vertical	1.3	1.5
110		1.3	1.5



Outlet diameter	Outlet position	Flow rate [l/s]	
ØD		H = 60 mm	
		A min. = 60	A max. = 85
		B min. = 165	B max. = 190
75	Horizontal	1.3	1.5

Notes:
A min. and B min. values can be reduced by 15 mm if earth screw is removed and channel outlet spigot shortened. Please be aware that channel outlet pipe shortening affects the A max. and B max. values.

Flow rates measured according to EN 1253. Flow rate performance without silt basket (flow rates with empty silt basket are approximately 15% lower than the values stated)



Introduction

ACO pipe is the ideal system for gray and black water, rainwater and industrial waste water drainage applications. When used with ACO gully and ACO channel systems, ACO pipe provides a unique, complex building drainage solution.

ACO pipe and fittings are available in 50 mm, 75 mm, 110 mm, 125 mm, 160 mm, 200 mm and 250 mm external diameters with the standard lengths from 0.15 meter up to 6 meter for optimum practicality and ease of assembly.

ACO pipe push-fit connection

Reliable for vacuum and gravity piping systems.

ACO pipe double lip seal delivers the ultimate system reliability. The unique and sophisticated design of lips and cavities provide tight connections.

Push-fit advantages

- Easy to assemble
- Time saving
- Cost saving
- Tight connection

System overview

Straight pipes

Bends

Branches

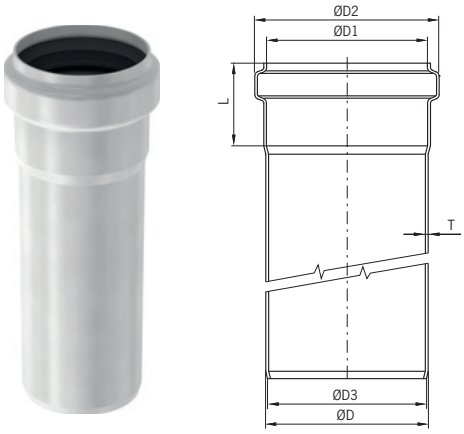
Accessories

Straight pipes

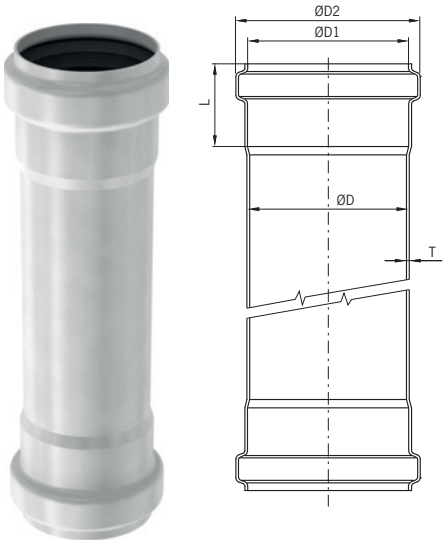
Product information

- Pipes are available in 50 mm, 75 mm, 110 mm, 125 mm, 160 mm, 200 mm and 250 mm external diameters
- Lengths from 0.15 meter up to 6 meter
- Available in 1.4301 (AISI 304) and 1.4404 (AISI 316L) grades stainless steel
- Push-fit system for quick assembly
- Superior seal security – components comprise a unique double lip sealing system, ideal for extraneous conditions
- Fully comply to EN 1124
- EPDM and Viton® seals available
- Fully pickled and passivated

ACO pipe - straight pipe



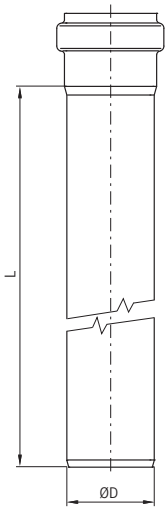
ACO pipe - double socketed pipe



Dimensions of socket and spigot					
ØD [mm]	$ØD_1$ [mm]	$ØD_2$ [mm]	$ØD_3$ [mm]	**Socket length** L [mm]	**Wall thickness** T [mm]
50	51	62.0	47	42	1
75	76	87.5	72	50	1
110	111	125.5	107	57	1
125	126	141.0	122	63	1
160	161	178.0	156	70	1.25
200	201	219.0	195	80	1.5
250	251	268.6	245	90	1.5

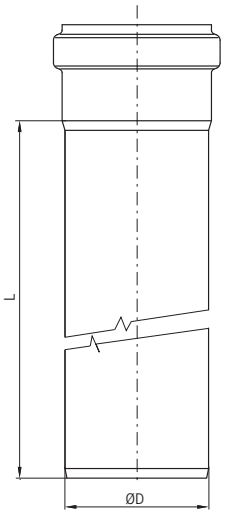
ACO pipe - straight pipe 50 mm

Seal material	Outlet diameter ØD [mm]	Active length L [mm]	Weight [kg]	Item number 1.4301	Item number 1.4404
EPDM	50	150	0.2	**98500**	**98550**
	50	250	0.4	**98502**	**98552**
	50	500	0.7	**98504**	**98554**
	50	750	1.0	**98506**	**98556**
	50	1000	1.3	**98508**	**98558**
	50	1500	1.9	**98510**	**98560**
	50	2000	2.6	**98512**	**98562**
	50	2500	3.2	**419274**	**419282**
	50	3000	3.8	**98514**	**98564**
	50	4000	5.0	**419458**	**419482**
	50	5000	6.3	**419466**	**419490**
	50	6000	7.5	**419474**	**419498**
Viton	50	150	0.2	**98501**	**98551**
	50	250	0.4	**98503**	**98553**
	50	500	0.7	**98505**	**98555**
	50	750	1.0	**98507**	**98557**
	50	1000	1.3	**98509**	**98559**
	50	1500	1.9	**98511**	**98561**
	50	2000	2.6	**98513**	**98563**
	50	2500	3.2	**419275**	**419283**
	50	3000	3.8	**98515**	**98565**
	50	4000	5.0	**419459**	**419483**
	50	5000	6.3	**419467**	**419491**
	50	6000	7.5	**419475**	**419499**



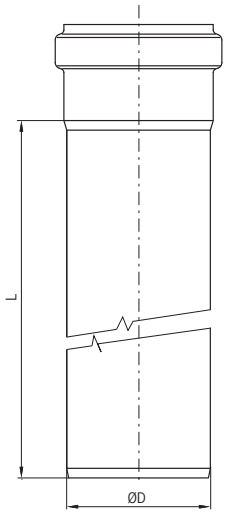
ACO pipe - straight pipe 75 mm

Seal material	Outlet diameter ØD [mm]	Active length L [mm]	Weight [kg]	Item number 1.4301	Item number 1.4404
EPDM	75	150	0.4	**98516**	**98566**
	75	250	0.6	**98518**	**98568**
	75	500	1.0	**98520**	**98570**
	75	750	1.5	**98522**	**98572**
	75	1000	2.0	**98524**	**98574**
	75	1500	2.9	**98526**	**98576**
	75	2000	3.6	**98528**	**98578**
	75	2500	4.8	**419276**	**419284**
	75	3000	5.7	**98530**	**98580**
	75	4000	7.6	**419460**	**419484**
	75	5000	9.4	**419468**	**419492**
	75	6000	11.3	**419476**	**419500**
Viton	75	150	0.4	**98517**	**98567**
	75	250	0.6	**98519**	**98569**
	75	500	1.0	**98521**	**98571**
	75	750	1.5	**98523**	**98573**
	75	1000	2.0	**98525**	**98575**
	75	1500	2.9	**98527**	**98577**
	75	2000	3.6	**98529**	**98579**
	75	2500	4.8	**419277**	**419285**
	75	3000	5.7	**98531**	**98581**
	75	4000	7.6	**419461**	**419485**
	75	5000	9.4	**419469**	**419493**
	75	6000	11.3	**419477**	**419501**



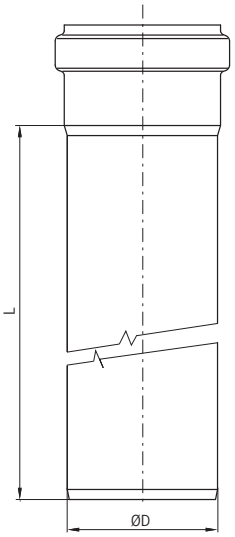
ACO pipe - straight pipe 110 mm

Seal material	Outlet diameter ØD [mm]	Active length L [mm]	Weight [kg]	Item number 1.4301	Item number 1.4404
EPDM	110	150	0.6	**98532**	**98582**
	110	250	0.9	**98534**	**98584**
	110	500	1.5	**98536**	**98586**
	110	750	2.2	**98538**	**98588**
	110	1000	2.9	**98540**	**98590**
	110	1500	4.3	**98542**	**98592**
	110	2000	5.7	**98544**	**98594**
	110	2500	7.1	**419278**	**419286**
	110	3000	8.4	**98546**	**98596**
	110	4000	11.1	**419462**	**419486**
	110	5000	13.9	**419470**	**419494**
	110	6000	16.7	**419478**	**419502**
Viton	110	150	0.6	**98533**	**98583**
	110	250	0.9	**98535**	**98585**
	110	500	1.5	**98537**	**98587**
	110	750	2.2	**98539**	**98589**
	110	1000	2.9	**98541**	**98591**
	110	1500	4.3	**98543**	**98593**
	110	2000	5.7	**98545**	**98595**
	110	2500	7.1	**419279**	**419287**
	110	3000	8.4	**98547**	**98597**
	110	4000	11.1	**419463**	**419487**
	110	5000	13.9	**419471**	**419495**
	110	6000	16.7	**419479**	**419503**



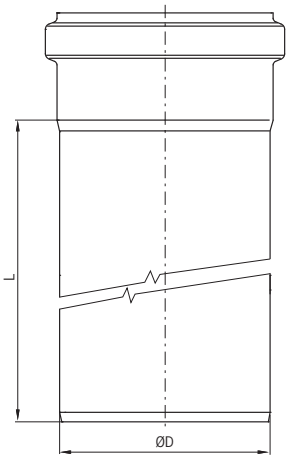
ACO pipe - straight pipe 125 mm

Seal material	Outlet diameter ØD [mm]	Active length L [mm]	Weight [kg]	Item number 1.4301	Item number 1.4404
EPDM	125	150	0.7	**419692**	**419712**
	125	250	1.0	**419694**	**419714**
	125	500	1.7	**419696**	**419716**
	125	750	2.5	**419698**	**419718**
	125	1000	3.3	**419700**	**419720**
	125	1500	4.9	**419702**	**419722**
	125	2000	6.5	**419704**	**419724**
	125	2500	8.1	**419708**	**419728**
	125	3000	9.6	**419706**	**419726**
	125	6000	19.0	**419710**	**419730**
Viton	125	150	0.7	**419693**	**419713**
	125	250	1.0	**419695**	**419715**
	125	500	1.7	**419697**	**419717**
	125	750	2.5	**419699**	**419719**
	125	1000	3.3	**419701**	**419721**
	125	1500	4.9	**419703**	**419723**
	125	2000	6.5	**419705**	**419725**
	125	2500	8.1	**419707**	**419727**
	125	3000	9.6	**419709**	**419729**
	125	6000	19.0	**419711**	**419731**



ACO pipe - straight pipe 160 mm

Seal material	Outlet diameter ØD [mm]	Active length L [mm]	Weight [kg]	Item number 1.4301	Item number 1.4404
EPDM	160	150	1.1	**98548**	**98598**
	160	250	1.6	**98600**	**98650**
	160	500	2.9	**98602**	**98652**
	160	750	4.1	**98604**	**98654**
	160	1000	5.4	**98606**	**98656**
	160	1500	7.9	**98608**	**98658**
	160	2000	10.4	**98610**	**98660**
	160	2500	12.9	**419280**	**419288**
	160	3000	15.4	**98612**	**98662**
	160	4000	20.4	**419464**	**419488**
	160	5000	25.4	**419472**	**419496**
	160	6000	30.4	**419480**	**419504**
Viton	160	150	1.1	**98549**	**98599**
	160	250	1.6	**98601**	**98651**
	160	500	2.9	**98603**	**98653**
	160	750	4.1	**98605**	**98655**
	160	1000	5.4	**98607**	**98657**
	160	1500	7.9	**98609**	**98659**
	160	2000	10.4	**98611**	**98661**
	160	2500	12.9	**419281**	**419289**
	160	3000	15.4	**98613**	**98663**
	160	4000	20.4	**419465**	**419489**
	160	5000	25.4	**419473**	**419497**
	160	6000	30.4	**419481**	**419505**



ACO pipe - straight pipe 200 mm

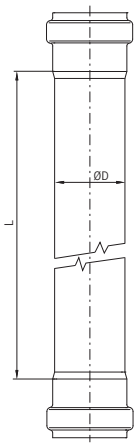
Seal material	Outlet diameter ØD [mm]	Active length L [mm]	Weight [kg]	Item number 1.4301	Item number 1.4404
EPDM	200	500	4.5	**419383**	**419384**
	200	1000	8.3	**419387**	**419388**
	200	2000	15.8	**419391**	**419392**
	200	3000	23.2	**419395**	**419396**
Viton	200	500	4.5	**419385**	**419386**
	200	1000	8.3	**419389**	**419390**
	200	2000	15.8	**419393**	**419394**
	200	3000	23.2	**419397**	**419398**

ACO pipe - straight pipe 250 mm

Seal material	Outlet diameter ØD [mm]	Active length L [mm]	Weight [kg]	Item number 1.4301	Item number 1.4404
EPDM	250	500	5.5	**417071**	**417072**
	250	1000	10.2	**417075**	**417076**
	250	2000	19.4	**417079**	**417080**
	250	3000	28.7	**417083**	**417084**
Viton	250	500	5.5	**417073**	**417074**
	250	1000	10.2	**417077**	**417078**
	250	2000	19.4	**417081**	**417082**
	250	3000	28.7	**417085**	**417086**

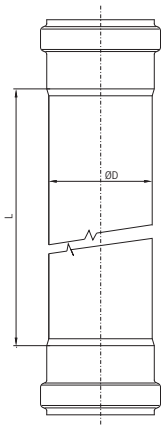
ACO pipe - double socketed pipe 50 mm

Seal material	Outlet diameter ØD [mm]	Active length L [mm]	Weight [kg]	Item number 1.4301	Item number 1.4404
EPDM	50	250	0.4	**419554**	**419594**
	50	500	0.7	**419556**	**419596**
	50	750	1.1	**419558**	**419598**
	50	1000	1.4	**419560**	**419600**
	50	1500	2.0	**419562**	**419602**
	50	2000	2.6	**419564**	**419604**
	50	3000	3.9	**419566**	**419606**
Viton	50	250	0.4	**419555**	**419595**
	50	500	0.7	**419557**	**419597**
	50	750	1.1	**419559**	**419599**
	50	1000	1.4	**419561**	**419601**
	50	1500	2.0	**419563**	**419603**
	50	2000	2.6	**419565**	**419605**
	50	3000	3.9	**419567**	**419607**



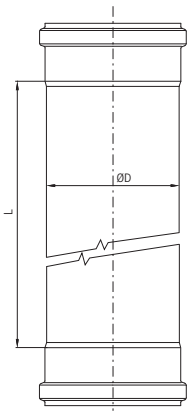
ACO pipe - double socketed pipe 75 mm

Seal material	Outlet diameter ØD [mm]	Active length L [mm]	Weight [kg]	Item number 1.4301	Item number 1.4404
EPDM	75	250	0.7	**419568**	**419608**
	75	500	1.2	**419570**	**419610**
	75	750	1.6	**419572**	**419612**
	75	1000	2.1	**419574**	**419614**
	75	1500	3.0	**419576**	**419616**
	75	2000	4.0	**419578**	**419618**
	75	3000	5.8	**419580**	**419620**
Viton	75	250	0.7	**419569**	**419609**
	75	500	1.2	**419571**	**419611**
	75	750	1.6	**419573**	**419613**
	75	1000	2.1	**419575**	**419615**
	75	1500	3.0	**419577**	**419617**
	75	2000	4.0	**419579**	**419619**
	75	3000	5.8	**419581**	**419621**



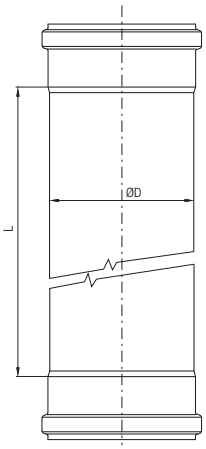
ACO pipe - double socketed pipe 110 mm

Seal material	Outlet diameter ØD [mm]	Active length L [mm]	Weight [kg]	Item number 1.4301	Item number 1.4404
EPDM	110	500	1.7	**419582**	**419622**
	110	750	2.4	**419584**	**419624**
	110	1000	3.0	**419586**	**419626**
	110	1500	4.4	**419588**	**419628**
	110	2000	5.7	**419590**	**419630**
	110	3000	8.4	**419592**	**419632**
Viton	110	500	1.7	**419583**	**419623**
	110	750	2.4	**419585**	**419625**
	110	1000	3.0	**419587**	**419627**
	110	1500	4.4	**419589**	**419629**
	110	2000	5.7	**419591**	**419631**
	110	3000	8.4	**419593**	**419633**



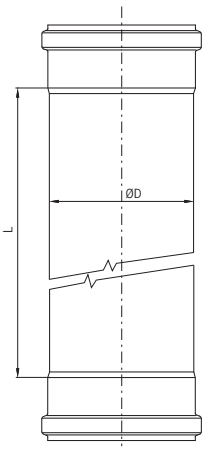
ACO pipe - double socketed pipe 125 mm

Seal material	Outlet diameter ØD [mm]	Active length L [mm]	Weight [kg]	Item number 1.4301	Item number 1.4404
EPDM	125	500	1.7	**419787**	**419799**
	125	750	2.5	**419789**	**419801**
	125	1000	3.3	**419791**	**419803**
	125	1500	4.9	**419793**	**419805**
	125	2000	6.5	**419795**	**419807**
	125	3000	9.6	**419797**	**419809**
Viton	125	500	1.7	**419788**	**419800**
	125	750	2.5	**419790**	**419802**
	125	1000	3.3	**419792**	**419804**
	125	1500	4.9	**419794**	**419806**
	125	2000	6.5	**419796**	**419808**
	125	3000	9.6	**419798**	**419810**



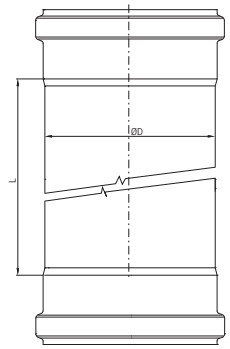
ACO pipe - double socketed pipe 160 mm

Seal material	Outlet diameter ØD [mm]	Active length L [mm]	Weight [kg]	Item number 1.4301	Item number 1.4404
EPDM	160	500	3.3	**419634**	**419646**
	160	750	4.5	**419636**	**419648**
	160	1000	5.8	**419638**	**419650**
	160	1500	8.2	**419640**	**419652**
	160	2000	10.7	**419642**	**419654**
	160	3000	15.7	**419644**	**419656**
Viton	160	500	3.3	**419635**	**419647**
	160	750	4.5	**419637**	**419649**
	160	1000	5.8	**419639**	**419651**
	160	1500	8.2	**419641**	**419653**
	160	2000	10.7	**419643**	**419655**
	160	3000	15.7	**419645**	**419657**



ACO pipe - double socketed pipe 200 mm

Seal material	Outlet diameter ØD [mm]	Active length L [mm]	Weight [kg]	Item number 1.4301	Item number 1.4404
EPDM	200	500	5.0	**419658**	**419659**
	200	1000	8.6	**419662**	**419663**
	200	2000	15.9	**419666**	**419667**
	200	3000	23.1	**419670**	**419671**
Viton	200	500	5.0	**419660**	**419661**
	200	1000	8.6	**419664**	**419665**
	200	2000	15.9	**419668**	**419669**
	200	3000	23.1	**419672**	**419673**



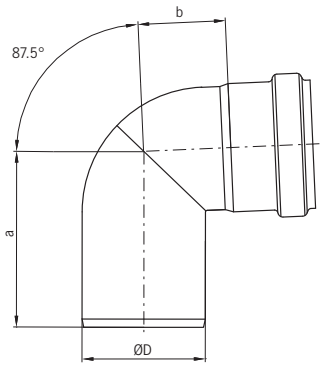
Bends

Product information

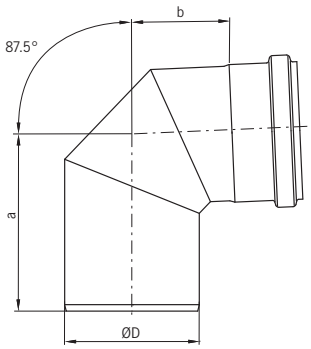
- Bends are available in 50 mm, 75 mm, 110 mm, 125 mm, 160 mm, 200 mm and 250 mm external diameters
- Available in 1.4301 (AISI 304) and 1.4404 (AISI 316L) grades stainless steel
- Push-fit system for quick assembly
- Superior seal security – components comprise a unique double lip sealing system, ideal for extraneous conditions
- Fully chemically pickled and passivated
- EPDM and Viton® seals available
- Fully comply to EN 1124

ACO pipe - bend 87.5°

Shape valid for ØD 50, 75, 110 and 160.



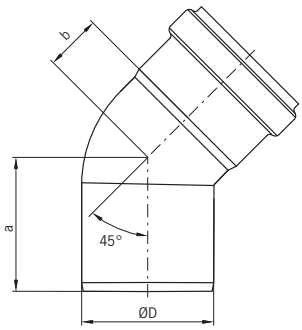
Shape valid for ØD 125, 200 and 250.



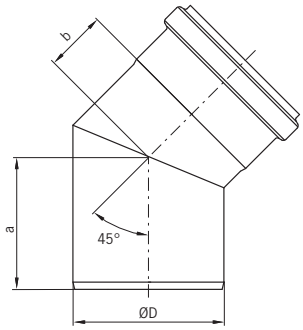
Seal material	Outlet diameter ØD [mm]	Dimensions a [mm]	Dimensions b [mm]	Weight [kg]	Item number 1.4301	Item number 1.4404
EPDM	50	86	40	0.2	**98700**	**98750**
	75	107	53	0.4	**98702**	**98752**
	110	134	67	0.7	**98704**	**98754**
	125	161	93	0.8	**419732**	**419734**
	160	181	105	1.7	**98706**	**98756**
	200	215	129	3.9	**419411**	**419413**
	250	297	198	5.1	**417087**	**417088**
Viton	50	86	40	0.2	**98701**	**98751**
	75	107	53	0.4	**98703**	**98753**
	110	134	67	0.7	**98705**	**98755**
	125	161	93	0.8	**419733**	**419735**
	160	181	105	1.7	**98707**	**98757**
	200	215	129	3.9	**419412**	**419414**
	250	297	198	5.1	**417089**	**417090**

ACO pipe - bend 45°

Shape valid for ØD 50, 75, 110 and 160.

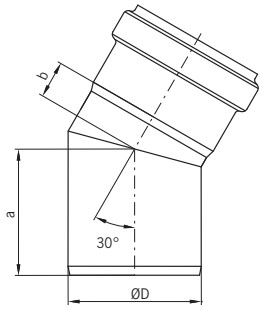


Shape valid for ØD 125, 200 and 250.



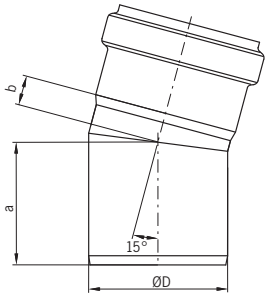
Seal material	Outlet diameter ØD [mm]	Dimensions a [mm]	Dimensions b [mm]	Weight [kg]	Item number 1.4301	Item number 1.4404
EPDM	50	62	24	0.2	**98708**	**98758**
	75	76	32	0.3	**98710**	**98760**
	110	93	42	0.5	**98712**	**98762**
	125	110	50	0.6	**419736**	**419738**
	160	131	55	1.3	**98714**	**98764**
	200	152	60	2.7	**419407**	**419409**
	250	177	76	4.1	**417091**	**417092**
Viton	50	62	24	0.2	**98709**	**98759**
	75	76	32	0.3	**98711**	**98761**
	110	93	42	0.5	**98713**	**98763**
	125	110	50	0.6	**419737**	**419739**
	160	131	55	1.3	**98715**	**98765**
	200	152	60	2.7	**419408**	**419410**
	250	177	76	4.1	**417093**	**417094**

ACO pipe - bend 30°



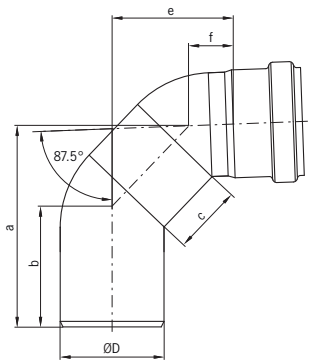
Seal material	Outlet diameter ØD [mm]	Dimensions a [mm]	Dimensions b [mm]	Weight [kg]	Item number 1.4301	Item number 1.4404
EPDM	50	57	16	0.2	**98716**	**98766**
	75	71	21	0.3	**98718**	**98768**
	110	85	27	0.5	**98720**	**98770**
	125	98	28	0.6	**419740**	**419742**
	160	110	40	1.2	**98722**	**98772**
	200	137	45	2.3	**419403**	**419405**
	250	153	58	2.9	**417095**	**417096**
Viton	50	57	16	0.2	**98717**	**98767**
	75	71	21	0.3	**98719**	**98769**
	110	85	27	0.5	**98721**	**98771**
	125	98	28	0.6	**419741**	**419743**
	160	110	40	1.2	**98723**	**98773**
	200	137	45	2.3	**419404**	**419406**
	250	153	58	2.9	**417097**	**417098**

ACO pipe - bend 15°



Seal material	Outlet diameter ØD [mm]	Dimensions a [mm]	Dimensions b [mm]	Weight [kg]	Item number 1.4301	Item number 1.4404
EPDM	50	54	12	0.1	**98724**	**98774**
	75	66	16	0.3	**98726**	**98776**
	110	78	15	0.4	**98728**	**98778**
	125	84	19	0.5	**419744**	**419746**
	160	99	29	1.0	**98730**	**98780**
	200	123	31	1.9	**419399**	**419401**
	250	136	40	2.5	**417099**	**417100**
Viton	50	54	12	0.1	**98725**	**98775**
	75	66	16	0.3	**98727**	**98777**
	110	78	15	0.4	**98729**	**98779**
	125	84	19	0.5	**419745**	**419747**
	160	99	29	1.0	**98731**	**98781**
	200	123	31	1.9	**419400**	**419402**
	250	136	40	2.5	**417101**	**417102**

ACO pipe - long bend 87.5°



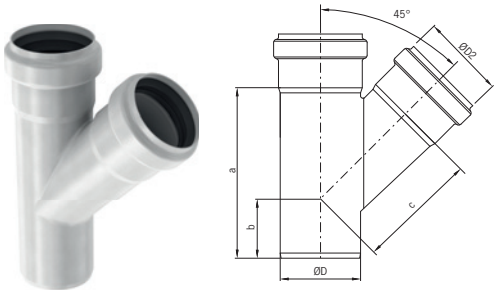
Seal material	Outlet diameter ØD [mm]	Dimensions a [mm]	Dimensions b [mm]	Dimensions c [mm]	Dimensions e [mm]	Dimensions f [mm]	Weight [kg]	Item number 1.4301	Item number 1.4404
EPDM	50	123	71	50	75	25	0.3	**419146**	**419000**
	75	146	87	50	88	32	0.5	**419148**	**419002**
	110	175	103	250	103	39	1.4	**419150**	**419004**
	160	222	126	250	183	92	2.2	**419152**	**419144**
Viton	50	123	71	50	75	25	0.3	**419147**	**419001**
	75	146	87	50	88	32	0.5	**419149**	**419003**
	110	175	103	250	103	39	1.4	**419151**	**419005**
	160	222	126	250	183	92	2.2	**419153**	**419145**

Branches

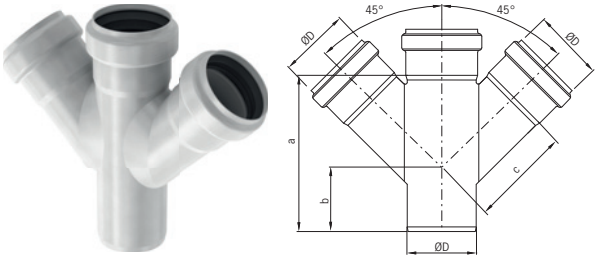
Product information

- Branches are available in 50 mm, 75 mm, 110 mm, 125 mm, 160 mm, 200 mm and 250 mm external diameters
- Available in 1.4301 (AISI 304) and 1.4404 (AISI 316L) grades stainless steel
- Push-fit system for quick assembly
- Superior seal security – components comprise a unique double lip sealing system, ideal for extraneous conditions
- Fully comply to EN 1124
- EPDM and Viton® seals available
- Fully pickled and passivated

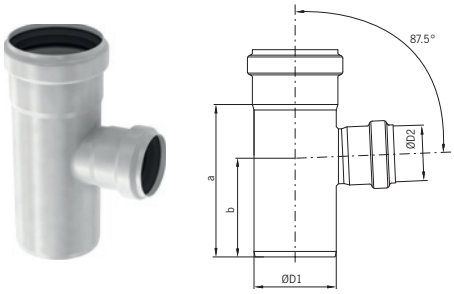
ACO pipe - single branch



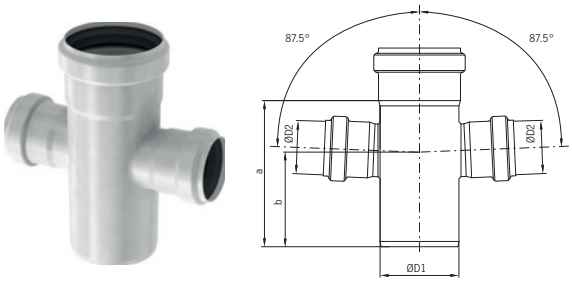
ACO pipe - double branch



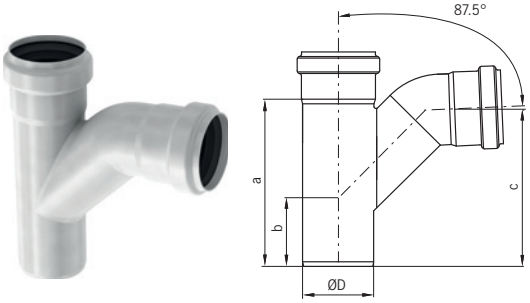
ACO pipe - single branch reduction



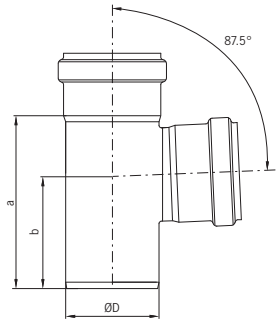
ACO pipe - double branch reduction



ACO pipe - swept single branch

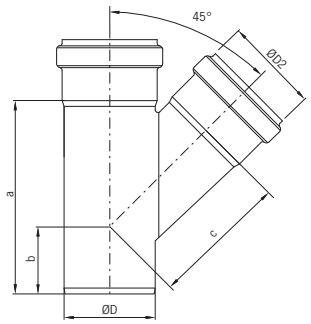


ACO pipe - single branch 87.5°



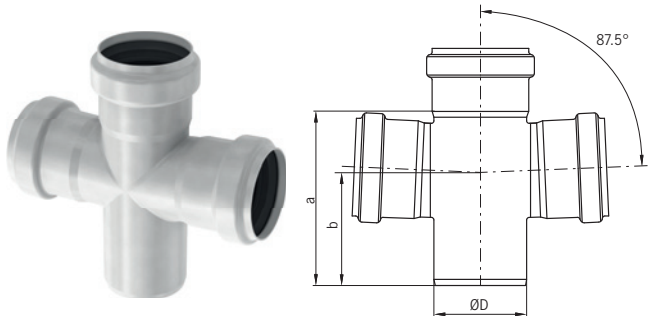
Seal material	Outlet diameter ØD [mm]	Dimensions a [mm]	Dimensions b [mm]	Weight [kg]	Item number 1.4301	Item number 1.4404
EPDM	50	106	71	0.3	**98732**	**98782**
	75	139	90	0.5	**98734**	**98784**
	110	183	117	0.8	**98736**	**98786**
	125	220	135	0.9	**419748**	**419750**
	160	288	184	2.3	**98738**	**98788**
	200	333	206	4.5	**419419**	**419421**
	250	363	215	5.5	**417103**	**417104**
Viton	50	106	71	0.3	**98733**	**98783**
	75	139	90	0.5	**98735**	**98785**
	110	183	117	0.8	**98737**	**98787**
	125	220	135	0.9	**419749**	**419751**
	160	288	184	2.3	**98739**	**98789**
	200	333	206	4.5	**419420**	**419422**
	250	363	215	5.5	**417105**	**417106**

ACO pipe - single branch 45°



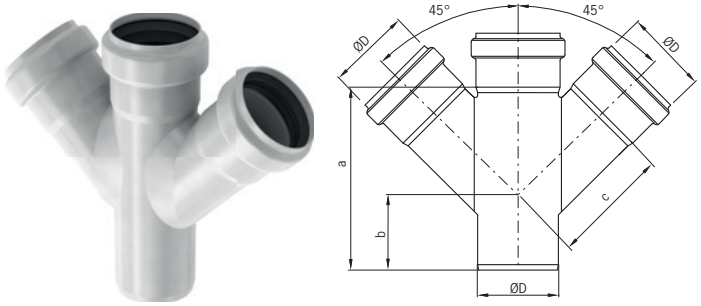
Seal material	Outlet diameter ØD [mm]	Dimensions a [mm]	Dimensions b [mm]	Dimensions c [mm]	Weight [kg]	Item number 1.4301	Item number 1.4404
EPDM	50	128	57	76	0.3	**98748**	**98798**
	75	179	74	110	0.5	**98800**	**98850**
	110	233	88	149	1.0	**98802**	**98852**
	125	273	103	170	1.1	**419760**	**419762**
	160	332	119	222	2.6	**98804**	**98854**
	200	415	151	274	5.7	**419427**	**419429**
	250	513	172	336	9.2	**417107**	**417108**
Viton	50	128	57	76	0.3	**98749**	**98799**
	75	179	74	110	0.5	**98801**	**98851**
	110	233	88	149	1.0	**98803**	**98853**
	125	273	103	170	1.1	**419761**	**419763**
	160	332	119	222	2.6	**98805**	**98855**
	200	415	151	274	5.7	**419428**	**419430**
	250	513	172	336	9.2	**417109**	**417110**

ACO pipe - double branch 87.5°



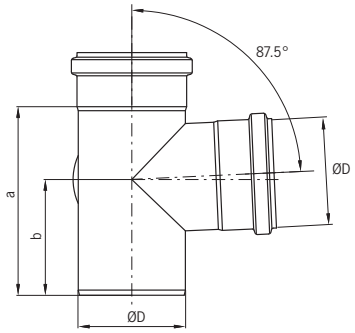
Seal material	Outlet diameter ØD [mm]	Dimensions a [mm]	Dimensions b [mm]	Weight [kg]	Item number 1.4301	Item number 1.4404
EPDM	50	106	71	0.3	**98740**	**98790**
	75	139	90	0.6	**98742**	**98792**
	110	183	117	0.9	**98744**	**98794**
	160	288	184	2.7	**98746**	**98796**
Viton	50	106	71	0.3	**98741**	**98791**
	75	139	90	0.6	**98743**	**98793**
	110	183	117	0.9	**98745**	**98795**
	160	288	184	2.7	**98747**	**98797**

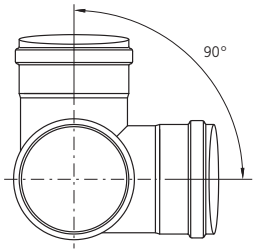
ACO pipe - double branch 45°



Seal material	Outlet diameter ØD [mm]	Dimensions a [mm]	Dimensions b [mm]	Dimensions c [mm]	Weight [kg]	Item number 1.4301	Item number 1.4404
EPDM	50	128	57	76	0.4	**98806**	**98856**
	75	179	74	110	0.7	**98808**	**98858**
	110	233	88	149	1.2	**98810**	**98860**
	160	332	184	222	3.5	**98812**	**98862**
	250	509	172	336	11	**417119**	**417120**
Viton	50	128	57	76	0.4	**98807**	**98857**
	75	179	74	110	0.7	**98809**	**98859**
	110	233	88	149	1.2	**98811**	**98861**
	160	332	184	222	3.5	**98813**	**98863**
	250	509	172	336	11	**417121**	**417122**

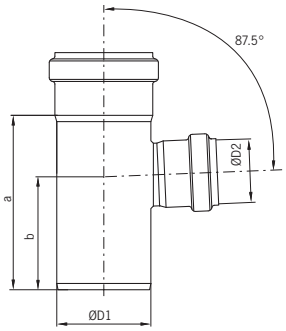
ACO pipe - corner branch 87.5°





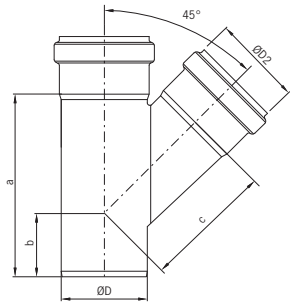
Seal material	Outlet diameter ØD [mm]	Dimensions a [mm]	Dimensions b [mm]	Weight [kg]	Item number 1.4301	Item number 1.4404
EPDM	50	106	71	0.4	**419162**	**419210**
	75	139	90	0.7	**419164**	**419212**
	110	183	117	1.1	**419166**	**419214**
	125	220	135	1.6	**417020**	**417021**
	160	288	184	2.9	**419168**	**419216**
Viton	50	106	71	0.4	**419163**	**419211**
	75	139	90	0.7	**419165**	**419213**
	110	183	117	1.1	**419167**	**419215**
	125	220	135	1.6	**417054**	**417055**
	160	288	184	2.9	**419169**	**419217**

ACO pipe - single branch reduction 87.5°



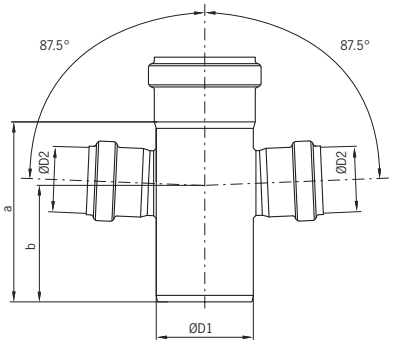
Seal material	Outlet diameter		Dimensions		Weight	Item number	Item number
	ØD1 [mm]	ØD2 [mm]	a [mm]	b [mm]	[kg]	1.4301	1.4404
EPDM	75	50	139	90	0.3	**98928**	**98930**
	110	50	183	117	0.5	**98932**	**98934**
	110	75	183	117	0.8	**98936**	**98938**
	125	75	187	110	0.9	**419752**	**419754**
	125	110	205	127	0.9	**419756**	**419758**
	160	110	288	184	2.3	**400691**	**400693**
	200	160	293	186	3.7	**419415**	**419417**
	250	200	349	226	5.8	**417111**	**417112**
Viton	75	50	139	90	0.3	**98929**	**98931**
	110	50	183	117	0.5	**98933**	**98935**
	110	75	183	117	0.8	**98937**	**98939**
	125	75	187	110	0.9	**419753**	**419755**
	125	110	205	127	0.9	**419757**	**419759**
	160	110	288	184	2.3	**400692**	**400694**
	200	160	293	186	3.7	**419416**	**419418**
	250	200	349	226	5.8	**417113**	**417114**

ACO pipe - single branch reduction 45°



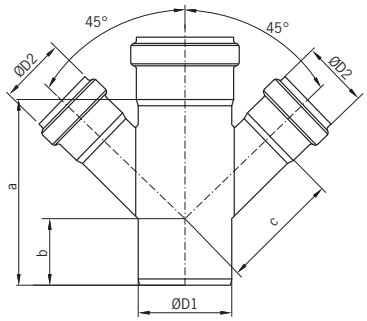
Seal material	Outlet diameter		Dimensions			Weight	Item number	Item number
	ØD1 [mm]	ØD2 [mm]	a [mm]	b [mm]	c [mm]	[kg]	1.4301	1.4404
EPDM	75	50	144	56	94	0.3	**400661**	**400663**
	110	50	147	42	119	0.5	**400665**	**400667**
	110	75	182	60	135	1.0	**400669**	**400671**
	125	75	200	65	141	1.1	**419764**	**419766**
	125	110	250	90	160	1.1	**419768**	**419770**
	160	110	332	119	191	2.6	**400699**	**400701**
	200	160	359	123	250	4.7	**419423**	**419425**
	250	200	429	175	307	7.6	**417115**	**417116**
Viton	75	50	144	56	94	0.3	**400662**	**400664**
	110	50	147	42	119	0.5	**400666**	**400668**
	110	75	182	60	135	1.0	**400670**	**400672**
	125	75	200	65	141	1.1	**419765**	**419767**
	125	110	250	90	160	1.1	**419769**	**419771**
	160	110	332	119	191	2.6	**400700**	**400702**
	200	160	359	123	250	4.7	**419424**	**419426**
	250	200	429	175	307	7.6	**417117**	**417118**

ACO pipe - double branch reduction 87.5°



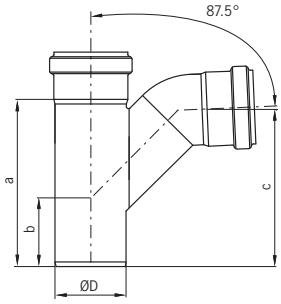
Seal material	Outlet diameter		Dimensions		Weight	Item number	Item number
	ØD1 [mm]	ØD2 [mm]	a [mm]	b [mm]	[kg]	1.4301	1.4404
EPDM	75	50	139	90	0.3	**98940**	**98942**
	110	50	183	117	0.6	**98944**	**98946**
	110	75	183	117	0.9	**98900**	**98902**
	160	110	288	184	2.7	**400695**	**400697**
Viton	75	50	139	90	0.3	**98941**	**98943**
	110	50	183	117	0.6	**98945**	**98947**
	110	75	183	117	0.9	**98901**	**98903**
	160	110	288	184	2.7	**400696**	**400698**

ACO pipe - double branch reduction 45°



Seal material	Outlet diameter		Dimensions			Weight	Item number	Item number
	ØD1 [mm]	ØD2 [mm]	a [mm]	b [mm]	c [mm]	[kg]	1.4301	1.4404
EPDM	75	50	144	56	94	0.4	**400673**	**400675**
	110	50	147	42	119	0.7	**400677**	**400679**
	110	75	182	60	135	1.2	**400681**	**400683**
	160	110	332	119	190	3.5	**400703**	**400705**
	250	200	429	150	307	10.1	**417123**	**417124**
Viton	75	50	144	56	94	0.4	**400674**	**400676**
	110	50	147	42	119	0.7	**400678**	**400680**
	110	75	182	60	135	1.2	**400682**	**400684**
	160	110	332	119	190	3.5	**400704**	**400706**
	250	200	429	150	307	10.1	**417125**	**417126**

ACO pipe - swept single branch 87.5°



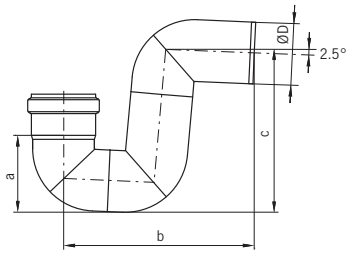
Seal material	Outlet diameter ØD [mm]	Dimensions a [mm]	b [mm]	c [mm]	Weight [kg]	Item number 1.4301	Item number 1.4404
EPDM	50	128	57	117	0.3	**98814**	**98864**
	75	179	74	157	0.6	**98816**	**98866**
	110	233	88	209	1.1	**98818**	**98868**
	160	332	184	302	2.8	**98820**	**98870**
Viton	50	128	57	117	0.3	**98815**	**98865**
	75	179	74	157	0.6	**98817**	**98867**
	110	233	88	209	1.1	**98819**	**98869**
	160	332	184	302	2.8	**98821**	**98871**

Accessories

Product information

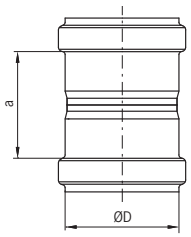
- Accessories are available in 50 mm, 75 mm, 110 mm, 125 mm, 160 mm, 200 mm and 250 mm external diameters
- Available in 1.4301 (AISI 304) and 1.4404 (AISI 316L) grades stainless steel
- Push-fit system for quick assembly
- Superior seal security – components comprise a unique double lip sealing system, ideal for extraneous conditions
- Fully comply to EN 1124
- EPDM and Viton® seals available
- Fully pickled and passivated

"P" trap



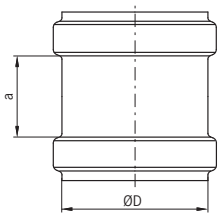
Seal material	Outlet diameter ØD [mm]	Dimensions a [mm]	b [mm]	c [mm]	Weight [kg]	Item number 1.4301	Item number 1.4404
EPDM	50	68	187	149	0.5	**98822**	**98872**
	75	94	232	193	0.7	**98824**	**98874**
	110	132	300	254	1.3	**98826**	**98876**
	160	190	403	347	3.3	**98828**	**98878**
Viton	50	68	187	149	0.5	**98823**	**98873**
	75	94	232	193	0.7	**98825**	**98875**
	110	132	300	254	1.3	**98827**	**98877**
	160	190	403	347	3.3	**98829**	**98879**

Straight coupling



Seal material	Outlet diameter ØD [mm]	Dimensions a [mm]	Weight [kg]	Item number 1.4301	Item number 1.4404
EPDM	50	54	0.1	**98920**	**98970**
	75	75	0.2	**98922**	**98972**
	110	84	0.4	**98924**	**98974**
	125	140	0.4	**419813**	**419815**
	160	110	0.8	**98926**	**98976**
	200	136	1.8	**419431**	**419433**
	250	181	3.1	**417158**	**417159**
Viton	50	54	0.1	**98921**	**98971**
	75	75	0.2	**98923**	**98973**
	110	84	0.4	**98925**	**98975**
	125	140	0.4	**419814**	**419816**
	160	110	0.8	**98927**	**98977**
	200	136	1.8	**419432**	**419434**
	250	181	3.1	**417160**	**417161**

Repair coupling

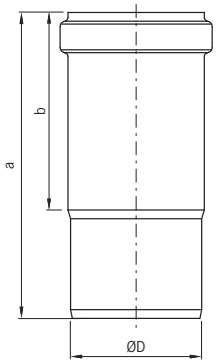


Seal material	Outlet diameter ØD [mm]	Dimensions a [mm]	Weight [kg]	Item number 1.4301	Item number 1.4404
EPDM	50	44	0.1	**98830**	**98880**
	75	46	0.2	**98832**	**98882**
	110	52	0.3	**98834**	**98884**
	125	70	0.3	**419772**	**419774**
	160	76	0.7	**98836**	**98886**
	200	100	1.5	**419435**	**419437**
	250	182	2.4	**417138**	**417139**
Viton	50	44	0.1	**98831**	**98881**
	75	46	0.2	**98833**	**98883**
	110	52	0.3	**98835**	**98885**
	125	70	0.3	**419773**	**419775**
	160	76	0.7	**98837**	**98887**
	200	100	1.5	**419436**	**419438**
	250	182	2.4	**417140**	**417141**

Note:
Repair couplings are used to aid a convenient repair to a damaged in-situ pipe. Unlike the standard straight coupling, there is no central registration to limit the insertion depth of the pipe. The repair coupling slides completely over a pipe joint and simply re-positioned to bridge the required pipe joint.

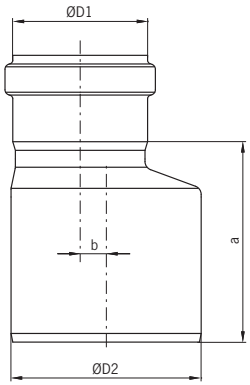
Installation tip:
Mark the final position of the repair coupling on the installed pipe system to ensure the coupling seals are positioned symmetrically about the pipe joint.

Expansion socket



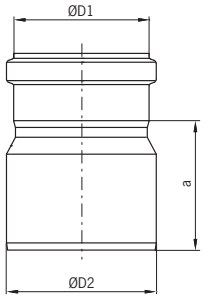
Seal material	Outlet diameter ØD [mm]	Dimensions a [mm]	Dimensions b [mm]	Weight [kg]	Item number 1.4301	Item number 1.4404
EPDM	50	159	102	0.2	**98664**	**98666**
	75	175	113	0.3	**98668**	**98670**
	110	200	121	0.5	**98672**	**98674**
	125	250	165	0.6	**419776**	**419778**
	160	292	170	1.4	**98676**	**98678**
	250	400	190	3.8	**417142**	**417143**
Viton	50	159	102	0.2	**98665**	**98667**
	75	175	113	0.3	**98669**	**98671**
	110	200	121	0.5	**98673**	**98675**
	125	250	165	0.6	**419777**	**419779**
	160	292	170	1.4	**98677**	**98679**
	250	400	190	3.8	**417144**	**417145**

Eccentric increaser coupling



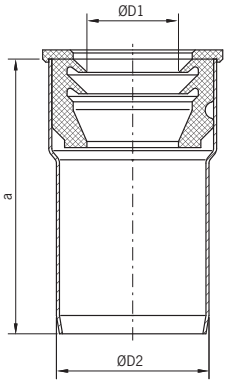
Seal material	Outlet diameter ØD1 [mm]	Outlet diameter ØD2 [mm]	Dimensions a [mm]	Dimensions b [mm]	Weight [kg]	Item number 1.4404
EPDM	50	75	75	7	0.3	**98892**
	50	110	110	25	0.4	**98978**
	75	110	110	15	0.5	**98894**
	110	160	160	22	1.1	**98896**
	200	250	180	15	2.4	**417135**
Viton	50	75	75	7	0.3	**98893**
	50	110	110	25	0.4	**98979**
	75	110	110	15	0.5	**98895**
	110	160	160	22	1.1	**98897**
	200	250	180	15	2.4	**417136**

Concentric increaser coupling



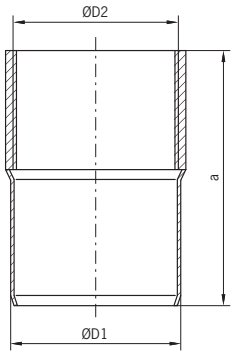
Seal material	Outlet diameter		Dimensions		Weight	Item number
	ØD1 [mm]	ØD2 [mm]	a [mm]	b [mm]	[kg]	1.4404
EPDM	110	125	125	0	0.6	**419780**
	125	160	160	0	1.2	**419811**
	160	200	200	0	1.8	**419441**
	200	250	180	0	2.4	**417133**
Viton	110	125	125	0	0.6	**419781**
	125	160	160	0	1.2	**419812**
	160	200	200	0	1.8	**419442**
	200	250	180	0	2.4	**417134**

Increaser connector



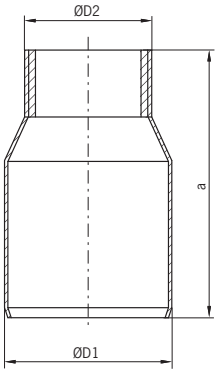
Seal material	Outlet diameter		Dimensions	Weight	Item number
	ØD1 [mm]	ØD2 [mm]	a [mm]	[kg]	1.4404
NBR	32	50	90	0.2	**419373**
	40	50	90	0.2	**419374**

Connector with internal screw thread and spigot



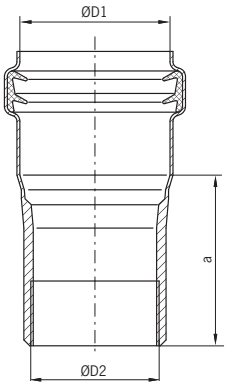
Outlet diameter		Dimensions	Weight	Item number
ØD1 [mm]	ØD2 [mm]	a [mm]	[kg]	1.4404
50	Rp 1¼"	72	0.2	**98956**
50	Rp 1½"	75	0.3	**98957**
50	Rp 2"	80	0.3	**98958**

Connector with external screw thread and spigot



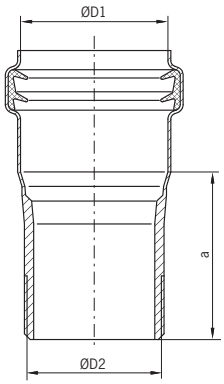
Outlet diameter		Dimensions	Weight	Item number
ØD1 [mm]	ØD2 [mm]	a [mm]	[kg]	1.4404
50	Rp 1¼"	100	0.2	**419330**
50	Rp 1½"	100	0.3	**419331**
50	Rp 2"	100	0.3	**419332**

Connector with socket and internal screw thread



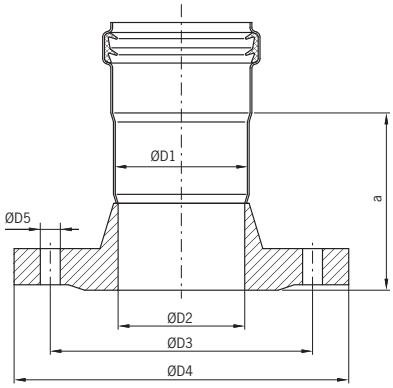
Seal material	Outlet diameter		Dimensions	Weight	Item number
	ØD1 [mm]	ØD2 [mm]	a [mm]	[kg]	1.4404
EPDM	50	R 1¼"	58	0.2	**419333**
	50	R 1½"	58	0.3	**419335**
	50	R 2"	58	0.3	**419337**
Viton	50	R 1¼"	58	0.2	**419334**
	50	R 1½"	58	0.3	**419336**
	50	R 2"	58	0.3	**419338**

Connector with socket and external screw thread



Seal material	Outlet diameter		Dimensions	Weight	Item number
	ØD1 [mm]	ØD2 [mm]	a [mm]	[kg]	1.4404
EPDM	50	R 1¼"	58	0.2	**419250**
	50	R 1½"	58	0.3	**419252**
	50	R 2"	58	0.3	**419254**
Viton	50	R 1¼"	58	0.2	**419251**
	50	R 1½"	58	0.3	**419253**
	50	R 2"	58	0.3	**419255**

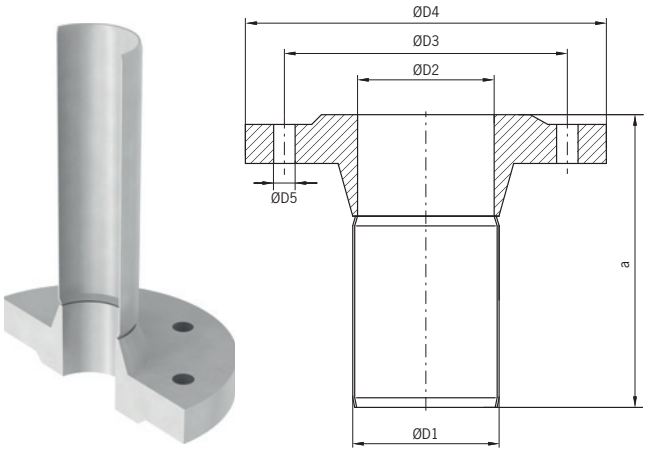
Connector with socket and flange



Seal material	Outlet diameter				n x ØD5	Dimensions	Weight	Item number
	ØD1 [mm]	ØD2 [mm]	ØD3 [mm]	ØD4 [mm]	[mm]	a [mm]	[kg]	1.4404
EPDM	50	DN 40	110	150	4 × 18	100	2.3	**419256**
	50	DN 50	125	165	4 × 18	100	2.7	**419258**
	75	DN 65	145	185	4 × 18	100	3.4	**419260**
	110	DN 100	180	220	8 × 18	100	4.9	**419262**
	200	DN 200	295	340	12 × 22	102	12.0	**419514**
Viton	50	DN 40	110	150	4 × 18	100	2.3	**419257**
	50	DN 50	125	165	4 × 18	100	2.7	**419259**
	75	DN 65	145	185	4 × 18	100	3.4	**419261**
	110	DN 100	180	220	8 × 18	100	4.9	**419263**
	200	DN 200	295	340	12 × 22	102	12.0	**419515**

Note:
n – number of holes for screws in the flange.
Flange PN 16 DIN 2633.
Flange PN 6 and PN 10 available on request.

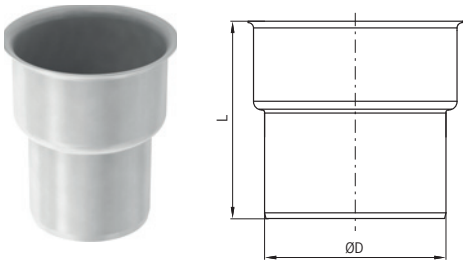
Connector with flange and spigot



Outlet diameter				n x ØD5	Dimensions	Weight	Item number
ØD1 [mm]	ØD2 [mm]	ØD3 [mm]	ØD4 [mm]	[mm]	a [mm]	[kg]	1.4404
50	DN 40	110	150	4 × 18	192	2.3	**419264**
50	DN 50	125	165	4 × 18	192	2.7	**419265**
75	DN 65	145	185	4 × 18	245	3.4	**419266**
110	DN 100	180	220	8 × 18	259	4.9	**419267**
160	DN 150	240	285	8 × 22	200	8.5	**419540**
200	DN 200	295	240	12 × 22	240	12.3	**419541**

Note:
n – number of holes for screws in the flange.
Flange PN 16 DIN 2633.
Flange PN 6 and PN 10 available on request.

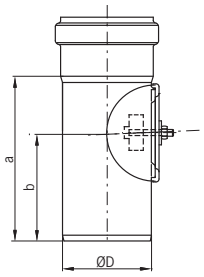
Connector cast iron spigot → ACO pipe socket



Outlet diameter	Dimensions	Weight	Item number
ØD [mm]	L [mm]	[kg]	1.4404
75	121	0.4	**98904**
110	137	0.6	**98906**

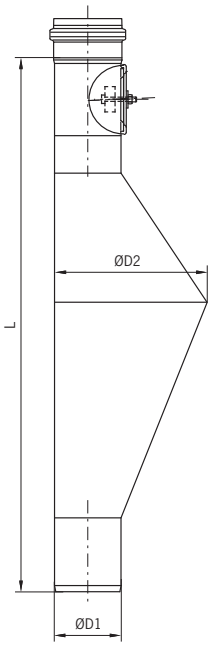
Note:
Set of reduction sealings cast Iron spigot → ACO pipe socket and ACO pipe spigot → cast iron socket

Access unit



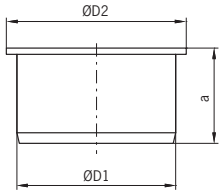
Seal material	Outlet diameter ØD [mm]	Dimensions a [mm]	Dimensions b [mm]	Weight [kg]	Item number 1.4301	Item number 1.4404
EPDM	75	139	90	0.5	**98913**	**98963**
	110	183	117	0.8	**98915**	**98965**
	125	210	135	0.9	**419783**	**419785**
	160	288	184	2.3	**98917**	**98967**
	200	293	186	3.7	**419676**	**419678**
	250	290	184	3.8	**417127**	**417128**
Viton	75	139	90	0.5	**98914**	**98964**
	110	183	117	0.8	**98916**	**98966**
	125	210	135	0.9	**419784**	**419786**
	160	288	184	2.3	**98918**	**98968**
	200	293	186	3.7	**419677**	**419679**
	250	290	184	3.8	**417129**	**417130**

Rat-stop



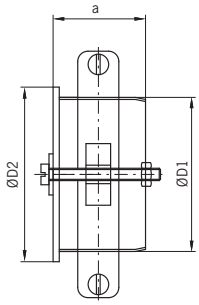
Seal material	Outlet diameter ØD1 [mm]	Outlet diameter ØD2 [mm]	Dimensions L [mm]	Weight [kg]	Item number 1.4301	Item number 1.4404
EPDM	110	250	864	3.8	**419268**	**419270**
Viton	110	250	864	3.8	**419269**	**419271**

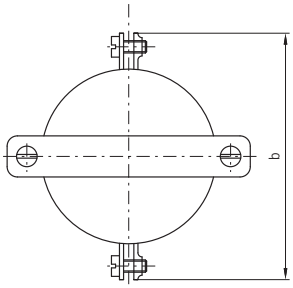
Socket plug



Outlet diameter		Dimensions	Weight	Item number
ØD1 [mm]	ØD2 [mm]	a [mm]	[kg]	1.4404
50	58	45	**0.1**	**98888**
75	85	45	**0.3**	**98889**
110	120	45	**0.5**	**98890**
125	135	50	**0.6**	**419782**
160	170	50	**0.5**	**98891**
200	210	50	**0.7**	**98994**
250	260	83	**1.0**	**417131**

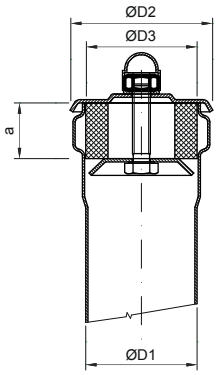
Socket plug with clamp





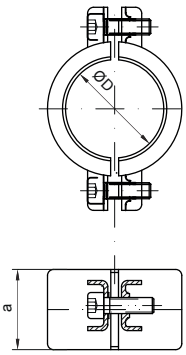
Outlet diameter		Dimensions		Weight	Item number
ØD1 [mm]	ØD2 [mm]	a [mm]	b [mm]	[kg]	1.4404
50	58	45	88	0.4	**419138**
75	85	45	120	0.6	**419139**
110	120	45	167	0.8	**419140**
160	170	50	214	1.1	**419141**
250	260	83	302	1.3	**417132**

Drainplugs with screwed plug



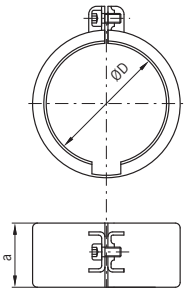
Outlet diameter			Dimensions	Weight	Item number	Item number
ØD1 [mm]	ØD2 [mm]	ØD3 [mm]	a [mm]	[kg]	1.4301	1.4404
50	64	50	12	0,08	**419942**	**419948**
75	92	75	12	0,5	**419943**	**419949**
110	126	105	15	0,5	**419944**	**419950**
125	160	124	12	0,9	**419945**	**419951**
160	186	166	20	1,2	**419946**	**419952**

Socket clamp - two parts



Outlet diameter	Dimensions	Weight	Item number	Item number
ØD [mm]	a [mm]	[kg]	1.4301	1.4404
50	40	0,14	**417024**	**417025**
75	40	0,25	**417026**	**417027**
110	43	0,34	**417028**	**417029**
125	45	0,38	**417016**	**417017**
160	45	0,48	**417030**	**417031**
200	45	0,51	-	**419983**
250	45	0,71	-	**417137**

Socket clamp

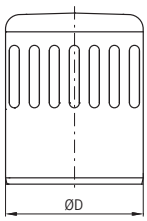


Outlet diameter ØD [mm]	Dimensions a [mm]	Weight [kg]	Item number 1.4404
50	40	0.1	**419134**
75	40	0.2	**419135**
110	43	0.3	**419136**
160	43	0.4	**419137**

Socket clamp special

Outlet diameter ØD [mm]	Dimensions a [mm]	Weight [kg]	Item number 1.4301	Item number 1.4404
50	40	0.11	**417066**	**417067**
75	43	0.16	**417068**	**417069**

Vent cowl



Outlet diameter ØD [mm]	Weight [kg]	Item number 1.4404
110	0,4	**98962**

Reduction sealing cast Iron spigot → ACO pipe

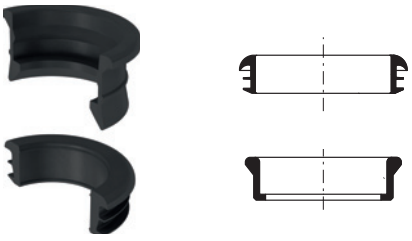
Outlet diameter ØD [mm]	Weight [kg]	Item number EPDM
DN 70/75	0.06	**400580**
DN 100/110	0.10	**400581**

Note:
While purchasing AP reduction sealing cast iron spigot → ACO pipe it is necessary order AP cast iron connector.

Reduction sealing ACO pipe → cast Iron spigot

Outlet diameter ØD [mm]	Weight [kg]	Item number EPDM
DN 70/75	0.05	**400586**
DN 100/110	0.08	**400587**
DN 150/160	0.12	**400588**

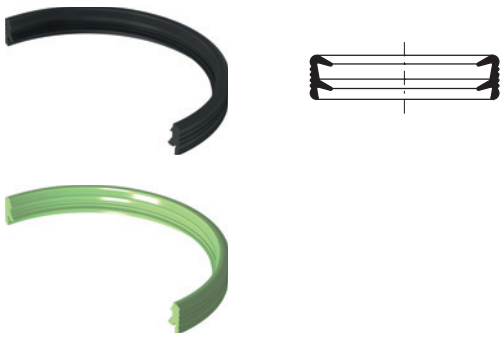
Reduction sealing set cast Iron



Outlet diameter ØD [mm]	Weight [kg]	Item number EPDM
DN 70/75	0.11	**419370**
DN 100/110	0.18	**419371**

Note:
Set of reduction sealings cast iron spigot → ACO pipe socket and ACO pipe spigot → cast iron socket.

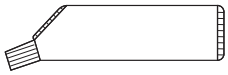
Seal



Outlet diameter ØD [mm]	Weight [kg]	Item number EPDM	Item number Viton
50	0.01	**98400**	**98404**
75	0.02	**98401**	**98405**
110	0.05	**98402**	**98406**
125	0.06	**419453**	**419454**
160	0.08	**98403**	**98407**
200	0.10	**98433**	**98437**
250	0.12	**414146**	**414147**

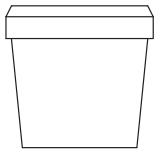
Note:
Spare ACO pipe seals in EPDM and Viton® grades are available for all pipe sizes. All seals incorporate the unique ACO pipe double lip seal arrangement for increased reliability and security. Both seal materials are mechanically interchangeable thereby facilitating easy on-site upgrade from EPDM to Viton®, or other. For seal installation instructions, refer to Installation recommendations (page 227). To enhance identification, the seals are colour coded as follows: EPDM seals are BLACK. Viton® seals are GREEN.

ACO Universal lubricant



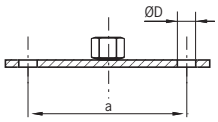
Weight [kg]	Item number
0.15	**E80350000**

ACO Universal lubricant in bucket 1kg



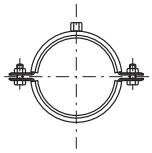
Weight [kg]	Item number
1.00	**E80350001**

Fixing plate



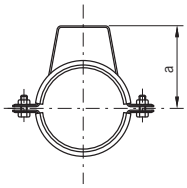
Outlet diameter ØD [mm]	Dimensions a [mm]	Weight [kg]	Item number Galvanised steel	Item number 1.4404
8.4	70	0.05	**400525**	**400521**

Support bracket with rubber infill



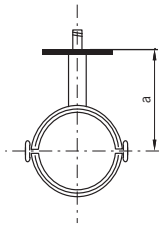
Outlet diameter ØD [mm]	Weight [kg]	Item number Galvanised steel	Item number 1.4404
50	0.14	**400533**	**400529**
75	0.23	**400534**	**400530**
110	0.33	**400535**	**400531**
125	0.36	**419854**	**419855**
160	0.39	**400536**	**400532**
200	0.44	**419451**	**419675**
250	0.60	**–**	**417149**

Support bracket with rubber infill and stirrup



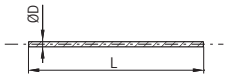
Outlet diameter ØD [mm]	Dimensions a [mm]	Weight [kg]	Item number Galvanised steel	Item number 1.4404
50	56	0.18	**400541**	**400537**
75	80	0.28	**400542**	**400538**
110	116	0.41	**400543**	**400539**
160	166	0.48	**400544**	**400540**

Support bracket with rubber infill and key



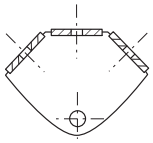
Outlet diameter ØD [mm]	Dimensions a [mm]	Weight [kg]	Item number Galvanised steel	Item number 1.4404
50	120	0.16	**400549**	**400545**
75	133	0.26	**400550**	**400546**
110	150	0.38	**400551**	**400547**
160	175	0.44	**400552**	**400548**

Threaded support pole M8



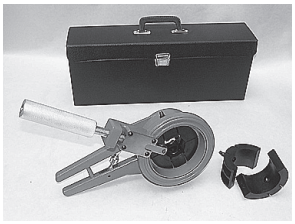
ØD [mm]	L [mm]	Weight [kg]	Item number Galvanised steel	Item number 1.4404
M8	1000	0.39	**400557**	**400553**
M8	90	0.03	**400558**	**400554**
M8	40	0.016	**400559**	**400555**

Set for axial fixing



Weight [kg]	Item number Galvanised steel	Item number 1.4404
0.11	**400565**	**400561**

Cutter manual set 50-110 mm



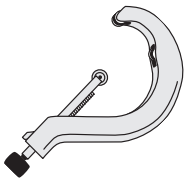
Note	Weight [kg]	Item number
in plastic case	3.50	**419363**

Replacement discs manual cutters

Note	Weight [kg]	Item number
for cutter 419363	0.005	**419365**

Note:
Ninimum order quantity – 10 pcs.

Manual cutter



ØD [mm]	Weight [kg]	Item number
50–110	1.0	**419364**
110–160	2.0	**400738**

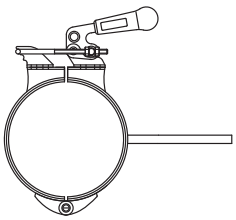
Note:
ACO pipe manual cutter should be ordered together with a holder for manual cutting.

Replacement discs for manual cutter

Note	Weight [kg]	Item number
for cutter 400738 and 419364	0.005	**400578**

Note:
Minimum order quantity – 10 pcs.

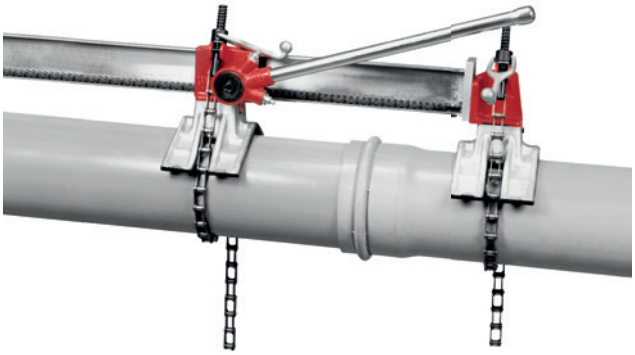
Holder for manual cutting



ØD [mm]	**Weight** [kg]	**Item number**
125	3.5	**419857**
160	4.0	**400742**
200	4.5	**400743**

Note:
While order AP holder for manual cutting it is necessary order AP manual cutter.

Joiner/disjoiner



ØD [mm]	**Weight** [kg]	**Item number**
100 - 400	25	**417070**

Flow rates

Full bore flow rate tables for varying gradients

For rainwater/storm drainage applications

Flow rates based on Colebrook-White formula.
Roughness coefficient ks = 0.6 mm

Gradient	Pipe Ø 50 mm		Pipe Ø 75 mm		Pipe Ø 110 mm		Pipe Ø 125 mm	
[%]	Flow rate Q [l/s]	Velocity v [m/s]	Flow rate Q [l/s]	Velocity v [m/s]	Flow rate Q [l/s]	Velocity v [m/s]	Flow rate Q [l/s]	Velocity v [m/s]
10.0	2.74	1.52	8.40	2.01	23.81	2.60	33.61	2.83
7.5	2.38	1.31	7.28	1.74	20.62	2.25	29.11	2.45
5.0	1.94	1.07	5.94	1.42	16.83	1.84	23.77	2.00
4.5	1.84	1.02	5.64	1.35	15.97	1.74	22.55	1.90
4.0	1.73	0.96	5.31	1.27	15.06	1.64	21.26	1.79
3.5	1.62	0.90	4.97	1.19	14.08	1.54	19.88	1.67
3.0	1.50	0.83	4.60	1.10	13.04	1.42	18.41	1.55
2.5	1.37	0.76	4.20	1.00	11.90	1.30	16.80	1.41
2.0	1.23	0.68	3.76	0.90	10.64	1.16	15.03	1.26
1.5	1.06	0.59	3.25	0.78	9.22	1.01	13.01	1.10
1.0	0.87	0.48	2.66	0.63	7.53	0.82	10.63	0.89

Gradient	Pipe Ø 160 mm		Pipe Ø 200 mm		Pipe Ø 250 mm	
Gradient [%]	Flow rate Q [l/s]	Velocity v [m/s]	Flow rate Q [l/s]	Velocity v [m/s]	Flow rate Q [l/s]	Velocity v [m/s]
10.0	64.15	3.31	116.89	3.83	218.31	4.45
7.5	55.56	2.87	101.22	3.32	188.95	3.85
5.0	45.36	2.34	82.65	2.71	154.13	3.14
4.5	43.03	2.22	78.40	2.57	146.17	2.98
4.0	40.57	2.10	73.92	2.43	137.77	2.81
3.5	37.95	1.96	69.14	2.27	128.82	2.63
3.0	35.13	1.81	64.01	2.10	119.20	2.43
2.5	32.07	1.66	58.43	1.92	108.74	2.22
2.0	28.68	1.48	52.26	1.71	97.18	1.98
1.5	24.84	1.28	45.26	1.48	84.05	1.71
1.0	20.28	1.05	36.95	1.21	68.48	1.40

Note:
The flow rates shown above assume an unrestricted discharge from the pipe. For installations without an unrestricted discharge, the flow rate will be affected by the downstream throttle.

For shallow gradients, the Colebrook-White formula underestimates flow rates (because when gradient tends towards zero %, velocity also tends to zero). For level or nearly level installations (slope < 1 %), spatially varied flow tables should be used.

Full bore flow rate tables for varying gradients

For soil/foul water drainage applications

Flow rates based on Colebrook-White formula.
Roughness coefficient ks = 0.6 mm

Gradient	Pipe Ø 50 mm		Pipe Ø 75 mm		Pipe Ø 110 mm		Pipe Ø 125 mm	
[%]	Flow rate Q [l/s]	Velocity v [m/s]	Flow rate Q [l/s]	Velocity v [m/s]	Flow rate Q [l/s]	Velocity v [m/s]	Flow rate Q [l/s]	Velocity v [m/s]
10.0	2.30	1.27	7.14	1.71	20.45	2.23	28.97	2.44
7.5	1.99	1.10	6.19	1.48	17.71	1.93	25.09	2.11
5.0	1.63	0.90	5.05	1.21	14.46	1.58	20.49	1.72
4.5	1.54	0.85	4.79	1.14	13.72	1.50	19.43	1.64
4.0	1.46	0.80	4.52	1.08	12.94	1.41	18.32	1.54
3.5	1.36	0.75	4.23	1.01	12.10	1.32	17.14	1.44
3.0	1.26	0.70	3.91	0.93	11.20	1.22	15.87	1.34
2.5	1.15	0.64	3.57	0.85	10.23	1.12	14.49	1.22
2.0	1.03	0.57	3.19	0.76	9.15	1.00	12.96	1.09
1.5	0.89	0.49	2.77	0.66	7.92	0.86	11.22	0.94
1.0	0.73	0.40	2.26	0.54	6.47	0.71	9.16	0.77

Gradient	Pipe Ø 160 mm		Pipe Ø 200 mm		Pipe Ø 250 mm	
[%]	Flow rate Q [l/s]	Velocity v [m/s]	Flow rate Q [l/s]	Velocity v [m/s]	Flow rate Q [l/s]	Velocity v [m/s]
10.0	55.61	2.87	101.81	3.34	206.87	4.22
7.5	48.16	2.49	88.17	2.89	177.84	3.62
5.0	39.32	2.03	71.99	2.36	143.52	2.93
4.5	37.30	1.93	68.30	2.24	135.71	2.77
4.0	35.17	1.82	64.39	2.11	127.46	2.60
3.5	32.90	1.70	60.23	1.98	118.69	2.42
3.0	30.46	1.57	55.76	1.83	109.29	2.23
2.5	27.80	1.44	50.90	1.67	99.10	2.02
2.0	24.87	1.28	45.53	1.49	87.86	1.79
1.5	21.53	1.11	39.43	1.29	75.18	1.53
1.0	17.58	0.91	32.19	1.06	60.25	1.23

Note:
The flow rates shown above assume an unrestricted discharge from the pipe. For installations without an unrestricted discharge, the flow rate will be affected by the downstream throttle.

For shallow gradients, the Colebrook-White formula underestimates flow rates (because when gradient tends towards zero %, velocity also tends to zero). For level or nearly level installations (slope < 1 %), spatially varied flow tables should be used.

Full bore flow rate table for levelled or nearly level gradients

Flow rates based on spatially-varied flow formula for steady non-uniform flow

Strickler coefficient = 90

Pipe diameter [mm]	Length [mm]	Gradient			
		0.0% Flow rate Q [l/s]	0.25% Flow rate Q [l/s]	0.5% Flow rate Q [l/s]	0.75% Flow rate Q [l/s]
50	5	0.40	0.57	0.75	0.92
50	10	0.30	0.54	0.75	0.92
50	15	0.26	0.53	0.75	0.92
50	20	0.23	0.53	0.75	0.92
75	5	1.45	1.75	2.40	2.90
75	10	1.10	1.72	2.35	2.90
75	15	0.95	1.70	2.35	2.90
75	20	0.85	1.70	2.35	2.90
110	5	4.50	5.55	6.75	8.15
110	10	3.60	5.05	6.60	8.15
110	15	3.20	4.90	6.50	8.15
110	20	2.80	4.80	6.50	8.15
125	5	6.45	7.90	9.60	11.45
125	10	5.20	7.25	9.50	11.45
125	15	4.55	7.00	9.50	11.45
125	20	4.10	6.85	9.50	11.45
160	5	13.00	15.40	18.60	21.20
160	10	10.90	14.30	18.50	21.20
160	15	9.50	13.80	18.40	21.20
160	20	8.50	13.50	18.30	21.20
200	5	24.80	29.00	34.20	38.70
200	10	20.80	26.70	33.80	38.40
200	15	18.60	25.70	33.70	38.40
200	20	17.00	25.00	33.60	38.40

Note:
Using spatially varied flow equations, and with level or nearly level pipes, the length to an outlet will determine the maximum flow rate through the pipe.

The flow rates shown above assume an unrestricted discharge from the pipe. For installations without an unrestricted discharge, the flow rate will be affected by the downstream throttle.

Operating pressures

The ACO pipe socketed stainless steel pipe systems are fitted with an unique, double lip seal manufactured from either EPDM or Viton®. The double lip seal arrangement provides added security for the ultimate long term reliability. The ACO pipe; socketed stainless steel pipe systems are tested and approved for operating pressures in gravity, siphonic and vacuum systems.

ACO pipe stainless steel pipe systems are designed for maximum working pressure 0.5 bar according to EN 1124. In case where higher pressure may apply, it is necessary to combine the system with socket clamps.

Pipe diameter [mm]	**Operating pressure** [bar]	
	Without socket clamp	With socket clamp
50	0.5	2.0
75	0.5	2.0
110	0.5	2.0
125	0,5	2,0
160	0,5	1,0
200	0,3	1,0
250	0,3	1,0

Vacuum applications	
Pipe diameter [mm]	Operating pressure [bar]
50	-0,8
75	-0,8
110	-0,8
125	-0,8
160	-0,8
200	-0,8
250	-0,8

Transport & handling information

ACO gully

- ACO gullies are packed on framed pallets, protected by cardboard inserts and PE foil. Individual products are packed in protective plastic net.
- Outlet pipes are equipped with protective lids.
- Gully tops and flanges are covered with protective blisters, which also protect the inside areas during installation. Individual products are packed in plastic protective net.
- Handle the gully/ gully parts with care. Any rough manipulation (like dragging along the ground, dumping off the truck...) can cause deformation and potentially cause product malfunctions.
- Contact with carbon steel may cause stainless steel corrosion.

ACO channel

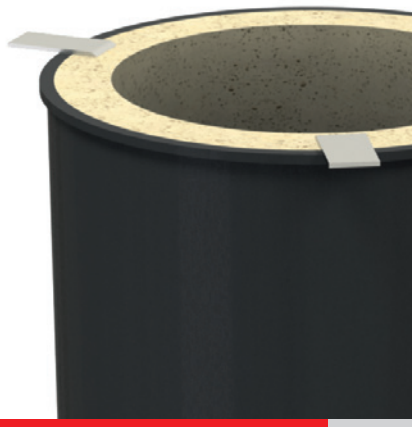
- The maximum transportable length of channel is 6 000 mm. In case of container or air transport, the recommended maximum transport length is 2 000 mm. Long channels over 6 000 mm are standardly divided in 6 m sections with transport joins.
- If one piece channel is required, the channel will have to be welded on site. Please contact our Sales/Technical department.
- ACO channel is for such requirement packed on framed/ non framed pallets fixed by plastic tape.
- Products are protected by wooden inserts and frames, in some cases PE foil or bubble foil is used.
- Articles are either wrapped seperately in ACO paper box or placed loose within EUR pallet space. It is strongly recommended that channels / channel parts / accessories are transported in their original packaging to avoid damage and / or loss of parts.
- Store preferably on dry and flat surface.
- Handle the channels/ channel parts/ accesories with care. Careful truck un/loading procedures are crucial. Any rough manipulation (like dragging along the ground, dumping off the truck etc...) can cause deformation and potentially cause product malfunctions.
- Contact with carbon steel may cause stainless steel corrosion.

ACO grating

- Standard grating length for ACO hygienic box channel is 500 mm and 1 000 mm for ACO modular box channel.
- ACO grating is packed on framed pallets protected by cardboard inserts and PE foil.
- Articles are either wrapped seperately in ACO paper box or placed loose within EUR pallet space.
- It is strongly recommended to transport gratings in their original packaging to avoid damage. Store preferably on dry and flat surface.
- Handle the gratings with care.
- Any rough manipulation (like dragging along the ground, dumping off the truck...) can cause deformation and potentially cause product malfunctions.
- Contact with carbon steel may cause stainless steel corrosion.

ACO pipe

- Maximum transport length of straight pipes pallets is 6 080 mm and width 820 mm.
- Straight pipes are packed on framed/ non framed long pallets, protected by wooden inserts and supports.
- Articles are either wrapped in cardboard and stretch or PE foil. Fittings are packed in cardboard boxes and stacked on foiled EUR pallets.
- It is strongly recommended to transport and store the pipes and fittings in their original packaging to avoid damage and/or the loss of parts. Store preferably on dry and flat surface.
- Handle the pipes and fittings with care. Any rough handling (like dragging along the ground, dumping off the truck...) can cause deformation and potentially cause product malfunctions.
- Contact with carbon steel may cause stainless steel corrosion.



Introduction

ACO has developed a solution which prevents the spreading of fire and high temperatures within different building´s floors where ACO hygienic gully, ACO hygienic channel and ACO pipe are installed.

The solution has been tested according to EN 1366-2 Fire resistance tests for service installations and classified according to EN 13501 Fire classifications of construction products and building elements. For classification details please see chart below.

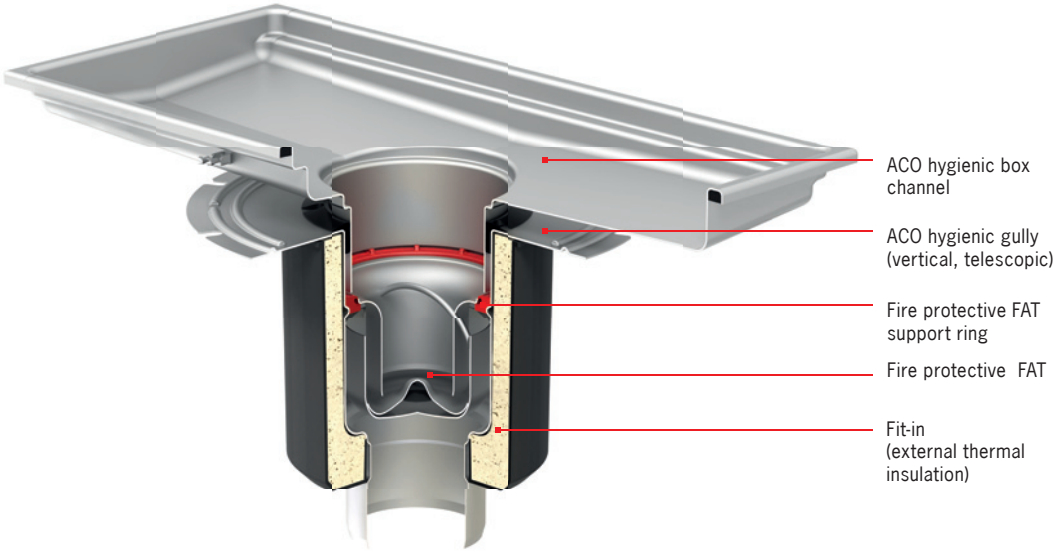
ACO fire protective kit can be used with telescopic vertical or fixed height vertical ACO hygienic gully and with ACO hygienic box channel, consisting of following items:

- External protection – Fit in
- Internal protection
  - Fire protective foul air trap
  - Fire protective foul air trap support

This solution has been designed and tested for use in either concrete or aerated concrete ceiling slabs with a minimum height of 150 mm.

ACO hygienic gully and ACO hygienic box channel installed with ACO fire protective kit can be connected to any kind of sewerage with ACO pipe regardless of its material, e.g. non combustible cast iron drain pipes SML, stainless steel ACO pipe (building material class A1) or plastic drain pipes (building material class B1/B2). All mentioned components of external and internal protection must be used to guarantee correct function of fire protection!

Tested at: PAVUS, a.s. protocol: No. Pr-13-2.061

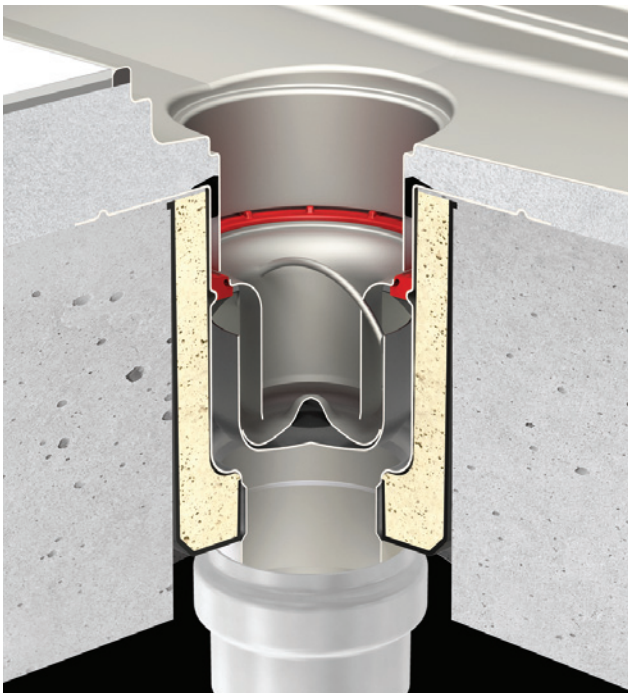


Gully type	Outlet diameter	Classification
ACO hygienic gully 142	75	EI 180
	110	EI 120
ACO hygienic gully 157	75	EI 180
	110	EI 120
ACO hygienic gully 218	110	EI 180
	160	EI 90

Classification according to EN 13 501, protocol: PK2-11-13-901-C-0

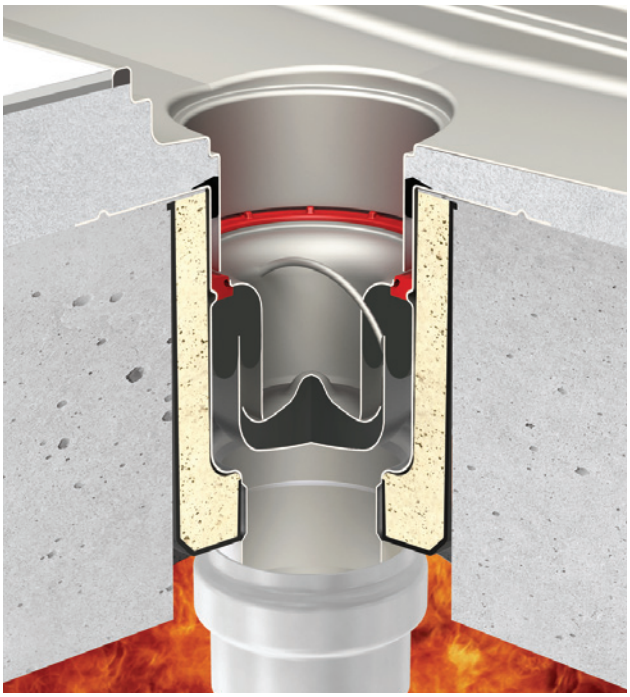
ACO hygienic gully 142 – Accessories ➔ Page 72
ACO hygienic gully 157 – Accessories ➔ Page 73
ACO hygienic gully 218 – Accessories ➔ Page 74

Installation and function



Before activation

- Installation scheme with assembled fire protective solution in ceiling construction.



Fire activation

- Function of fire protective solution to prevent the spread of fire within storey structure by transmission (ACO gully).
- Time preventing the spread of fire is limited from 90 minutes to 180 minutes.

Installation and function

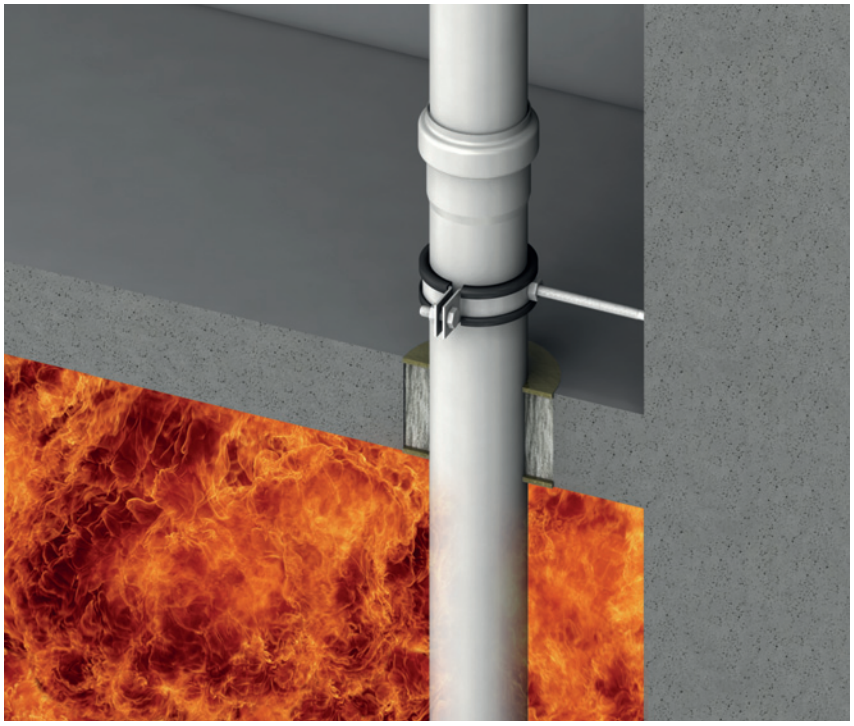
ACO pipe push-fit system is classified and certified as a non-combustible product (as it is manufactured in compliance to EN 1124, part 1 & part 2). This standard classifies the ACO pipe systems as class A1 fire resistant (highest rating).

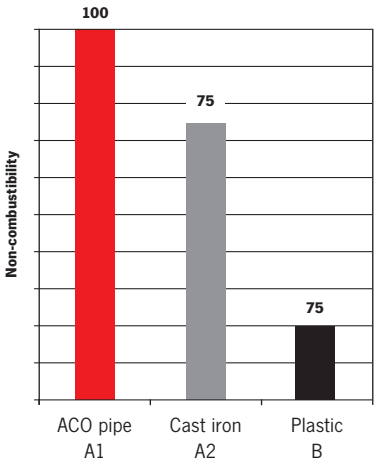
ACO pipe systems are certified also by SITAC authority as fire resistant (cert. no. 0410-01).

Special certificate of fire resistance for coated pipes (no. CSI PK-13-083) is available.

Fire certificates from marine authorities are available.

Non combustibility:
- Non combustible
- No additional fire collars needed at installation
- No toxic fumes emitted in case of fire
- EN 1124





Introduction

Drainage is a critical component affecting the hygienic performance of commercial food preparation business. Effective drainage helps to mitigate hazards from the external environment and is central to the safe and hygienic operation internally. Within the food production facility, surface liquids represent potential hazard of microbiological contamination. Liquids may be part of the cleaning process, or may originate from specific equipment discharge points, or be simply the result of an accidental spillage. Quite often the liquids contains other components – organic matter being predominant. Floor drainage components cater for these situations through three core functions - interception, conveyance of fluids, and ability to act as a barrier.

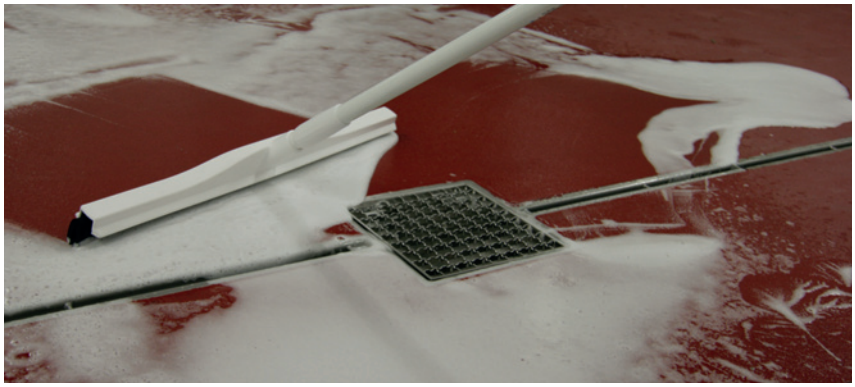
Effective cleaning of drainage in commercial food preparation business reduces risk of contamination and spoiling of food during preparation, processing, and storage. The main objective of cleaning is to remove soil to obtain clean surface and thereby reduce number of microorganisms. A further reduction of microorganism can be obtained by disinfection step.

Principles of cleaning

The principles of cleaning involve combination of thermal, kinetic and chemical energy. The cleaning processes are always combination of these factors and time of these to work. The key point to highlight is that all equipment – **including drainage** – in food processing plant should have hygienic design, which is easy to clean and disinfect. Othervise the cleaning process is time and energy consuming and not cost effective. All surfaces of ACO stainless steel drainage are hygienically designed – no sharp corners, edges, dead spaces and crevices. ACO drainage is easily accessible for cleaning and visual inspection.

The effectiveness of drainage cleaning depends on number of factors:

- Soil type and properties
- Material, design and surfaces
- Water quality
- Cleaning chemicals
- Cleaning procedure
- Cleaning parameters; like temperature, time, flow velocity and concentration of chemicals



There are two different types of surface to be cleaned:

Product contact surface
All equipment that itentionally or unitentionally (e.g. due to splashing) comes to contact with final product or from which product or condensate may drain, drop or be drawn into the main product or product container.

Non product contact surface
All other exposed surfaces, including surfaces associated with equipment, such as support structures, control panels and external surfaces. It also includes surfaces related to the manufacturing environment, such as floors, walls and drain channels.

We also differenciate cleaning process as whether it is applied dry or wet.

Dry cleaning
Dry cleaning is essentially a mechanical removal of soils using sweeping, brushing, wiping and vacuuming. Enviroments typically to be cleaned by dry methods include plants which are producing flour, cocoa, dry milk products, dry soups and dry infant formulas.

Wet cleaning
Wet cleaning involves application of fluids (usually water based) to achieve the desired cleaning result. This can be applied to Open Plant Cleaning (OPC): surfaces to be cleaned have to be accessible to fluids. In addition, some components may be physically removed from production area and cleaned separately – Cleaning out of place (COP). Drainage systems require wet cleaning.

The last is a distinction between whether the cleaning process is done manually or automatically.

Manual cleaning
Manual cleaning is generally considered as labour intensive and, therefore often expensive. The manual tools should be hygienic – resistant to applied chemicals and suitable for a specific operation. On top of it; operators should be properly trained to be able to perform cleaning as expected to achieve clean surfaces. ACO drainage has all elements of hygienic design that makes cleaning of ACO drainage much easier and faster when compared to competitive products.

Automatic cleaning
Utensils and dismantled parts of equipment are cleaned and disinfected automatically in industrial washing machines, tray or tunnel washers (automatic COP). CIP is also defined as automatic cleaning system.

Cleaning chemicals

There are three main classes of cleaning compounds:

- detergents
- alkalies
- acids
- disinfectants/sanitizers

Detergents
This broad group of chemicals is widely used in households and in food industries brings different type of soil from surfaces into cleaning foams and emulsions that could be easily rinsed off.

Alkalies
Alkaline compounds are effective for dissolution of proteins and removal of fats. Example of alkalies are sodium hydroxide (caustic soda) and potassium hydroxide. These compounds are hazzardeous to personnel and mostly used in CIP – automatic dosing system is recommended.

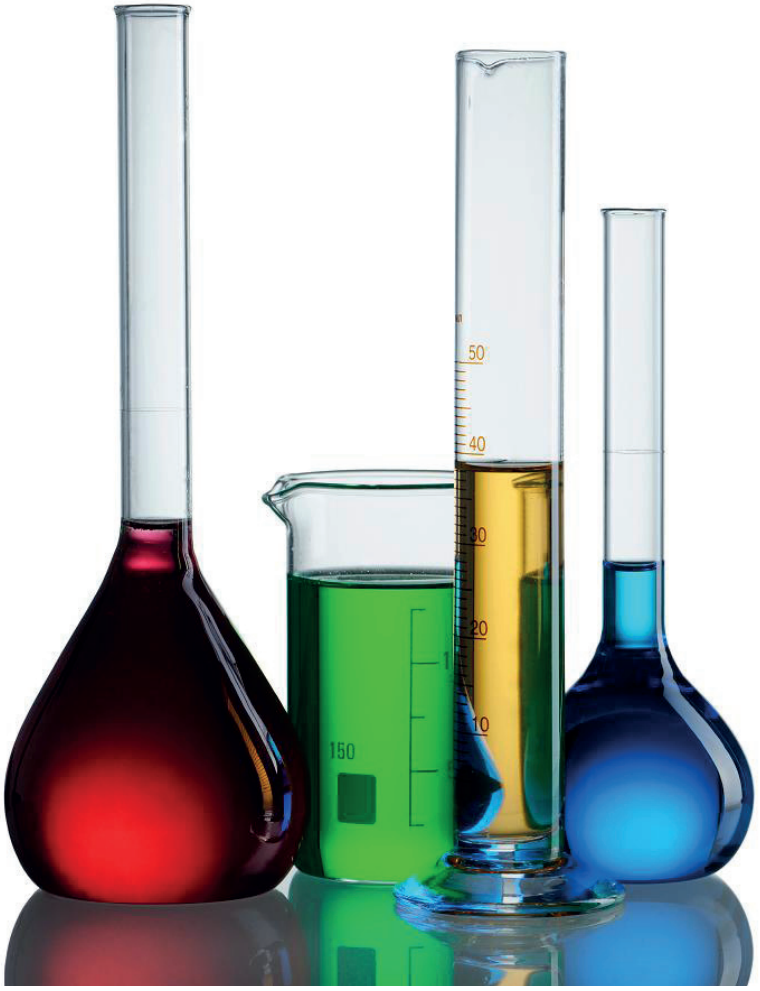
Acids
Acids, both organic and inorganic, are commonly used for removal of mineral deposits, such as: hard water scale or milkstone. Acids are potentialy corrosive to construction materials and must be used with care.

When chemical cleaning is performed, it is neccesseray to use low-pressure sprays, foam or gel. Foam and gel are more viscous than sprayed agents and preferred as they are not prone to aerosol formation. Selection of the correct detergent for given application should be always done in co-operation with the detergent supplier.

Disinfectants/sanitizers
In case of high risk area's or production areas with microbiological sensitive products, the floors and drain systems should be sprayed with disinfectants/sanitizers, which will reduce the contamination risk even more. The disinfectants/sanitizers will kill remaining micro-organisms, according to the required specifications.

The plant downtime and labour associated with cleaning is major cost of any food processing operation.

Sources of soil
Primary source of soil is from processed food product itself. Microbiological bio-films mainly contribute to the soil build ups on drainage surfaces. These films vary in their solubility depending upon such factors as heat effect, age, dryness, time, etc. It is essential that personel involved in the cleaning process design have understanding of the nature of the soil to be removed before selecting a detergent and cleaning method. The rule of thumb is that acid cleaners dissolve alkalaine soils (minerals), and and detergents disolve acid soils and food wastes (proteins).



Manual cleaning of drainage

1 

Remove all present grocery, raw materials, wrapping materials and tools.

2 

Cover all equipment that could be contaminated.

3 

Remove excess dirt from floor and gratings, and place into designated container.

4 

Remove gratings.

5 

Remove and empty silt basket and foul air trap.

6 

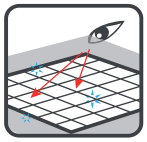
Place collected waste and dirt into designated container. Rinse grating, silt basket and foul air trap with clean water. Then place foul air trap into its original position.

7 

Wash all surfaces with designated detergent and designated hand brush.

8 

Rinse all surfaces with clean water.

9 

Visually check surface cleanliness - repeat cleaning process if neccessary.

10 

Place silt basket and grating to its original position.

11 

Rinse the entire equipment with clean water.

Chemical cleaning of drainage

1 
Remove all present grocery, raw materials, wrapping materials and tools.

2 
Cover all equipment that could be contaminated.

3 
Remove excess dirt from floor and gratings; and place into designated container.

4 
Remove gratings.

5 
Remove and empty silt basket and foul air trap.

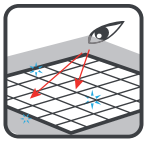
6 
Place collected waste and dirt into designated container. Rinse grating, silt basket and foul air trap with clean water. Then place foul air trap into its original position.

7 
Apply foam to all surfaces.

8 

Leave foam for 15 minutes.

9 
Rinse off foam with clean water.

10 
Visually check surface cleanliness - repeat cleaning process if neccessary.

11 
Place silt basket and grating to its original position.

12 
Rinse the entire equipment with clean water.

Overview with recommended cleaning procedures for drainage

These instructions are for guidance only. **Always follow manufacturer´s instructions.**
All procedures have to be verified and adjusted to the application specifics.

Frequency	Procedure	Physical agents	Chemical agents	Examples of chemical cleaning agents suitable for ACO stainless steel drainage
Daily	Removal of organic deposits (fats, proteins, saccharides and polysaccharides)	▪ Steam ▪ Medium pressure water to max 25 bar ▪ Mechanical / kinetic energy (brushes, CIP medium velocity)	▪ Caustics (sodium hydroxide, potassium hydroxide) ▪ Detergents / surfactants	Standard chemical agents used for floor cleaning should be sufficient (should be validated) Oxofoam, Endorochlor (Diversey)
Weekly	Removal of inorganic deposits that could promote very resistent biofilms	Mechanical abrasive methods – polishing	▪ Nitric acid for stainless steel passivation where chlorine attack could be expected ▪ Inorganic acids (phosphoric acid) ▪ Weak organic acids	▪ Acifoam (Diversey) ▪ Acigel (Diversey) ▪ Super Dilac (Diversey)
Note	Removal of rinse water residues	Removal of excess water with a squeegee	Alcohols (isopropylalcohol, ethanol)	Chlorine tablets (Suma Tab D4 by Diversey) are often added to the water in foul trap in microbial sensitive production area‘s

Any cleaning procedures, including those recommended by equipment suppliers, must be properly validated at the equipment, where it will be applied and on the soil that could be expected even after certain time of usage.

Always follow manufacturer´s instructions to avoid damage to the equipment.

Content

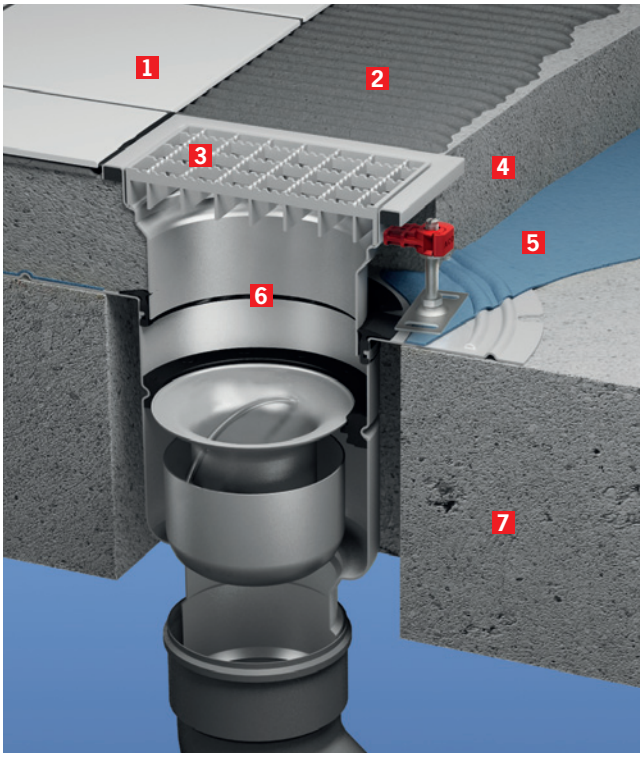
Content



ACO hygienic gully

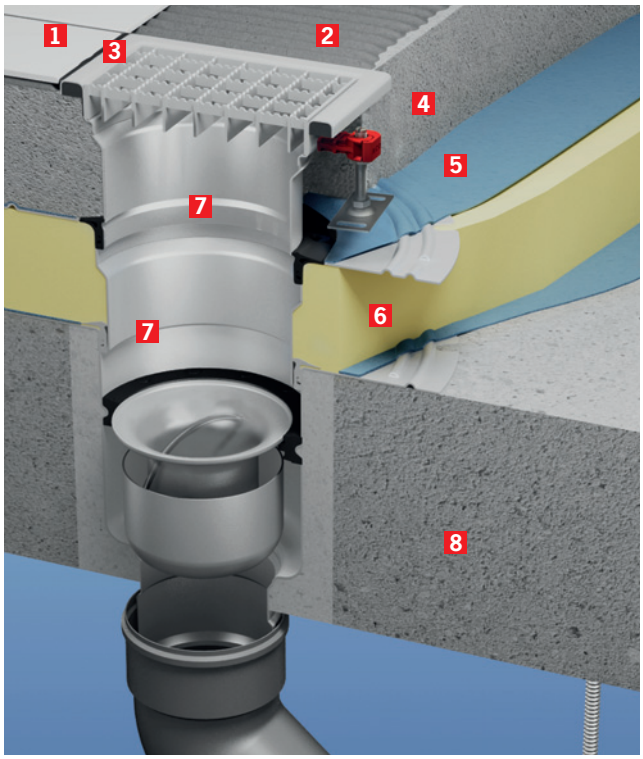
ACO hygienic gully – telescopic flanged gully installed in suspended concrete slab construction

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



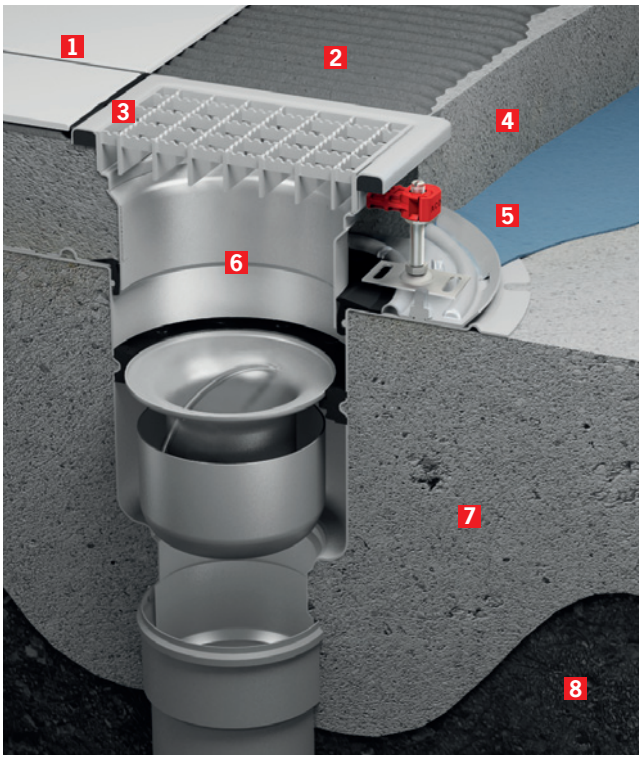
ACO hygienic gully – telescopic flanged gully and raising flanged piece installed in suspended concrete slab construction

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



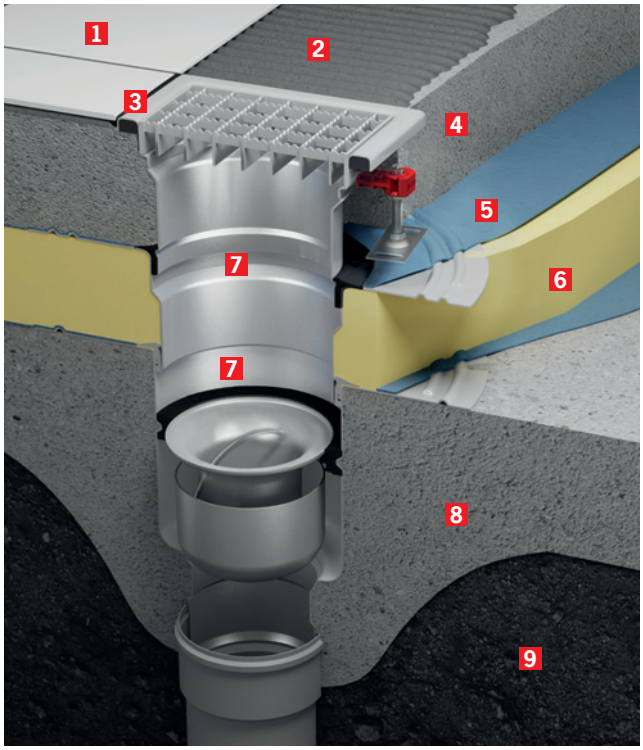
ACO hygienic gully – telescopic flanged gully installed in solid concrete floor

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



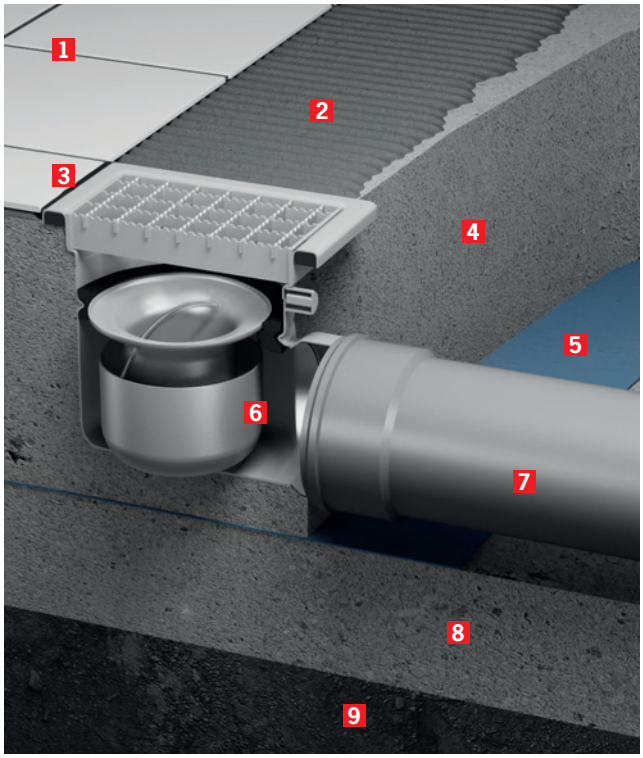
ACO hygienic gully – telescopic flanged gully and raising piece installed in solid concrete floor

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



ACO hygienic gully – fixed height gully installed in solid concrete floor

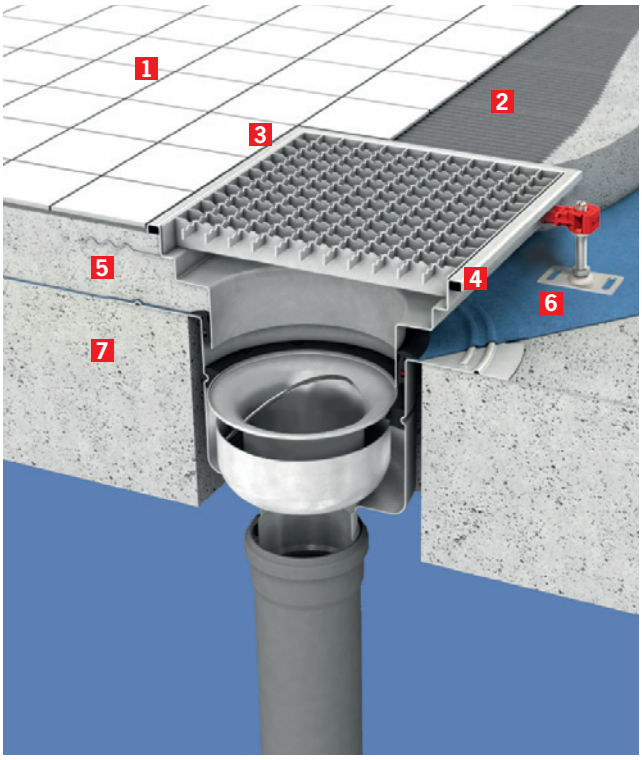
1 Ceramic tiles
2 Tile cement
3 Mastic sealant
4 Floor screed
5 Dampf proof membrane (DPM)
6 Gully
7 Outlet pipe
8 Floor slab
9 Compacted soil



ACO hygienic box channel

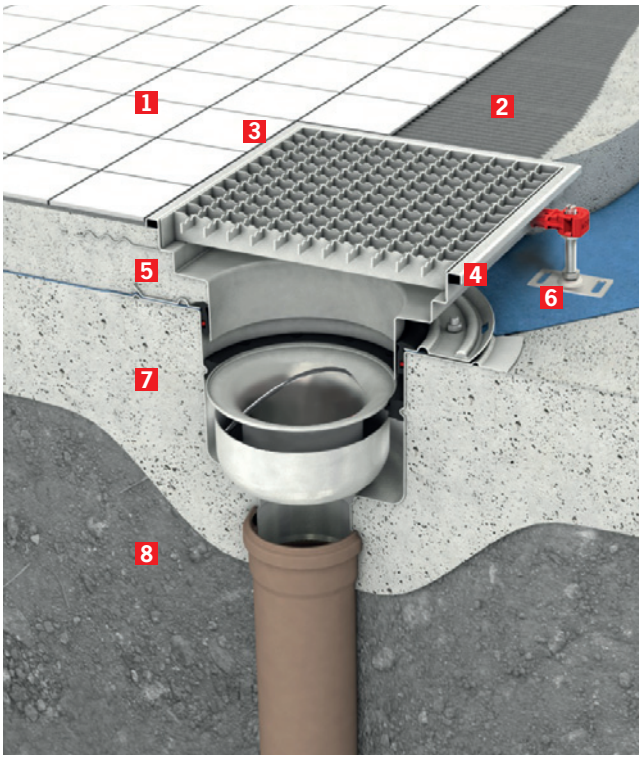
ACO hygienic box channel standard type – ACO hygienic gully with adhesive bonding flange (Tiled floor)

1 Ceramic tiles
2 Tile cement
3 Mastic sealant
4 Rubber infill
5 Floor screed
6 Water proof membrane
7 Solid concrete floor slab



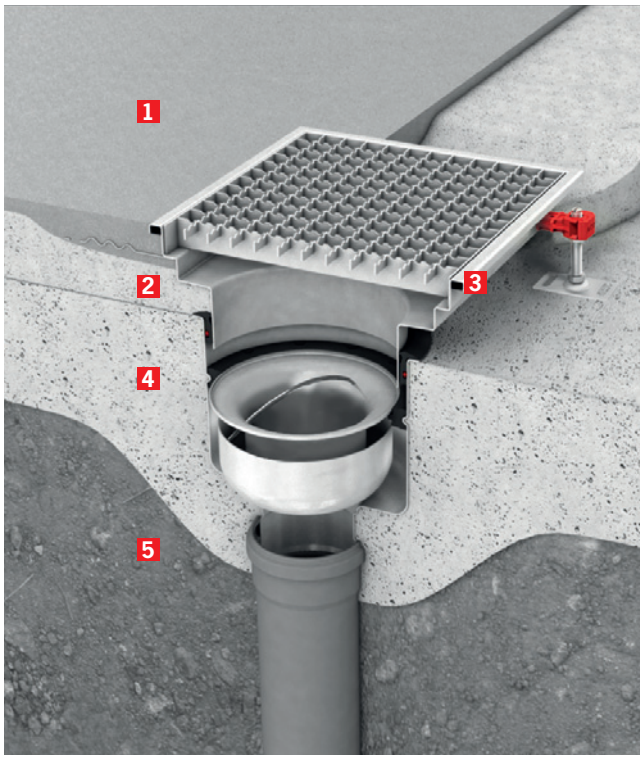
ACO hygienic box channel standard type – ACO hygienic gully with mechanical clamping flange (Tiled floor)

1 Ceramic tiles
2 Tile cement
3 Mastic sealant
4 Rubber infill
5 Floor screed
6 Water proof membrane
7 Solid concrete floor slab
8 Compacted soil



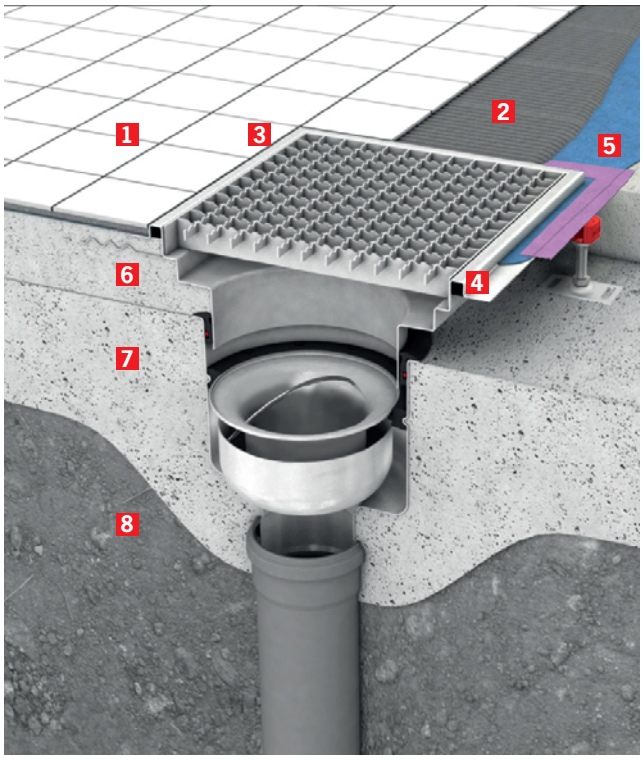
ACO hygienic box channel standard type – ACO hygienic gully with location flange (Resin floor)

1 Epoxy/resin floor
2 Floor screed
3 Rubber infill
4 Solid concrete floor slab
5 Compacted soil



ACO hygienic box channel extendend type – ACO hygienic gully with location flange (Tiled floor)

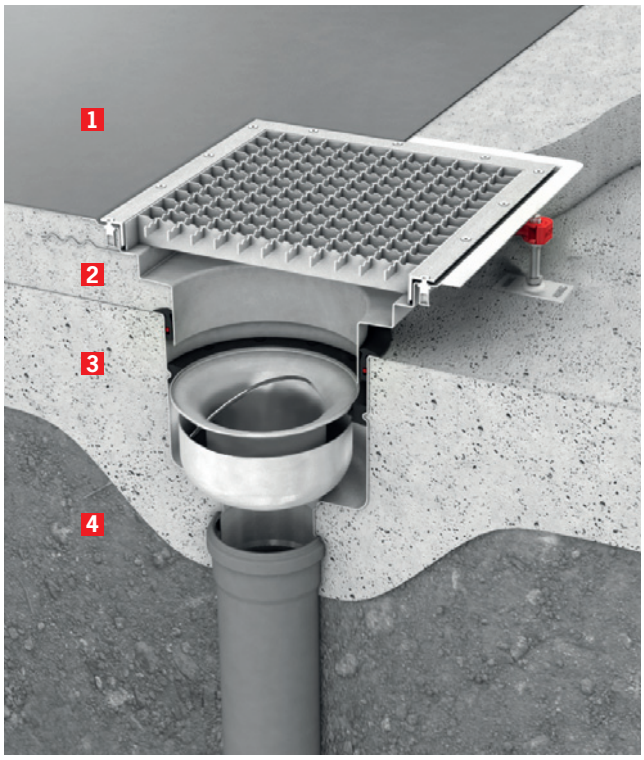
1 Ceramic tiles
2 Tile cement
3 Mastic sealant
4 Rubber infill
5 Water proof membrane
6 Floor screed
7 Solid concrete floor slab
8 Compacted soil



ACO vinyl box channel

ACO vinyl box channel – ACO hygienic gully with location flange (Vinyl floor)

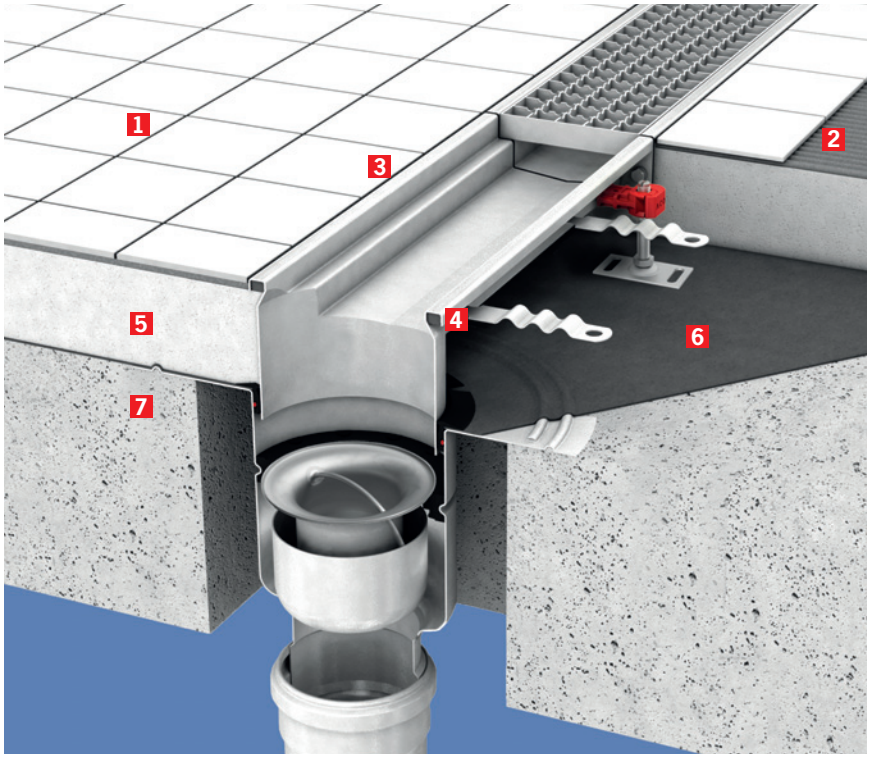
1 Vinyl floor
2 Floor screed
3 Solid concrete floor slab
4 Compacted soil



ACO modular box channel

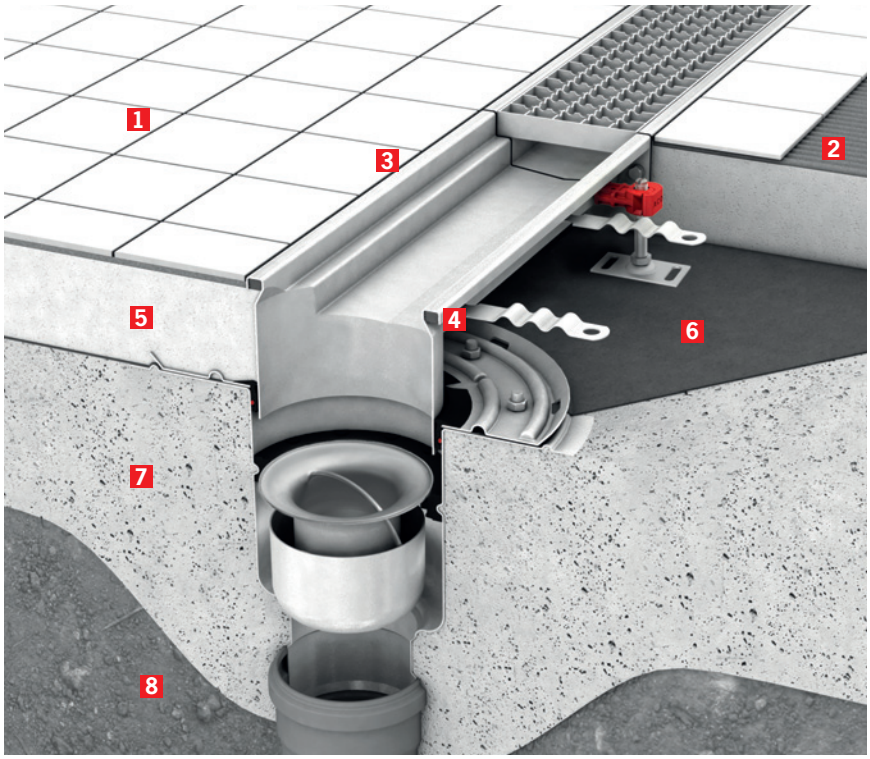
ACO modular box channel standard type – ACO hygienic gully with adhesive bonding flange (Tiled floor)

1. Ceramic tiles
2. Tile cement
3. Mastic sealant
4. Rubber infill
5. Floor screed
6. Water proof membrane
7. Solid concrete floor slab



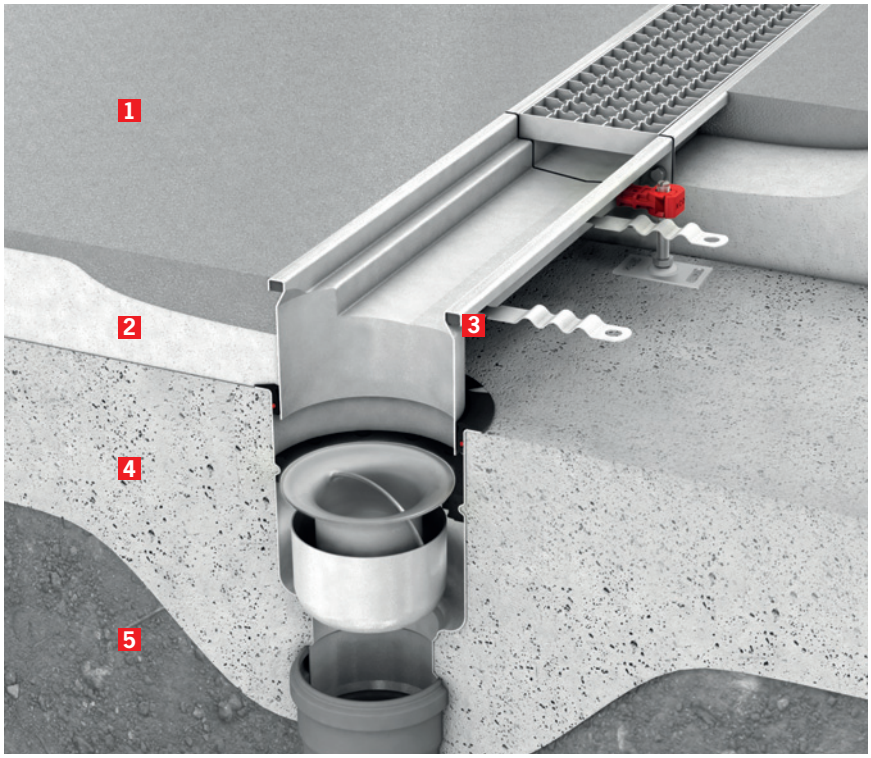
ACO modular box channel standard type – ACO hygienic gully with mechanical clamping flange (Tiled floor)

1. Ceramic tiles
2. Tile cement
3. Mastic sealant
4. Rubber infill
5. Floor screed
6. Water proof membrane
7. Solid concrete floor slab
8. Compacted soil



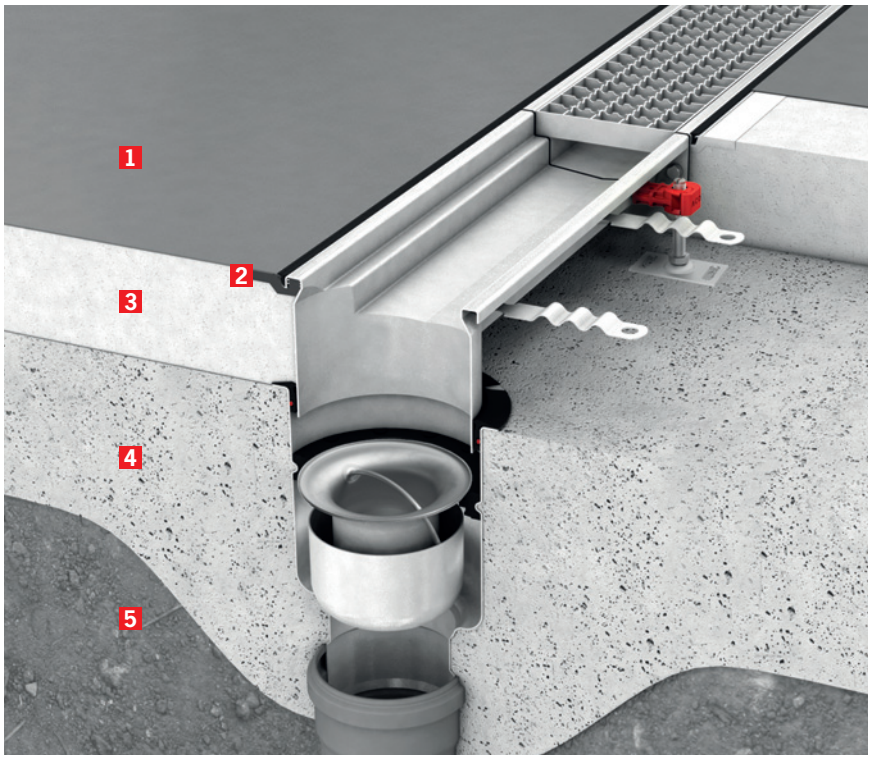
ACO modular box channel standard type – ACO hygienic gully with location flange (Resin floor)

1 Epoxy/resin floor
2 Floor screed
3 Rubber infill
4 Solid concrete floor slab
5 Compacted soil



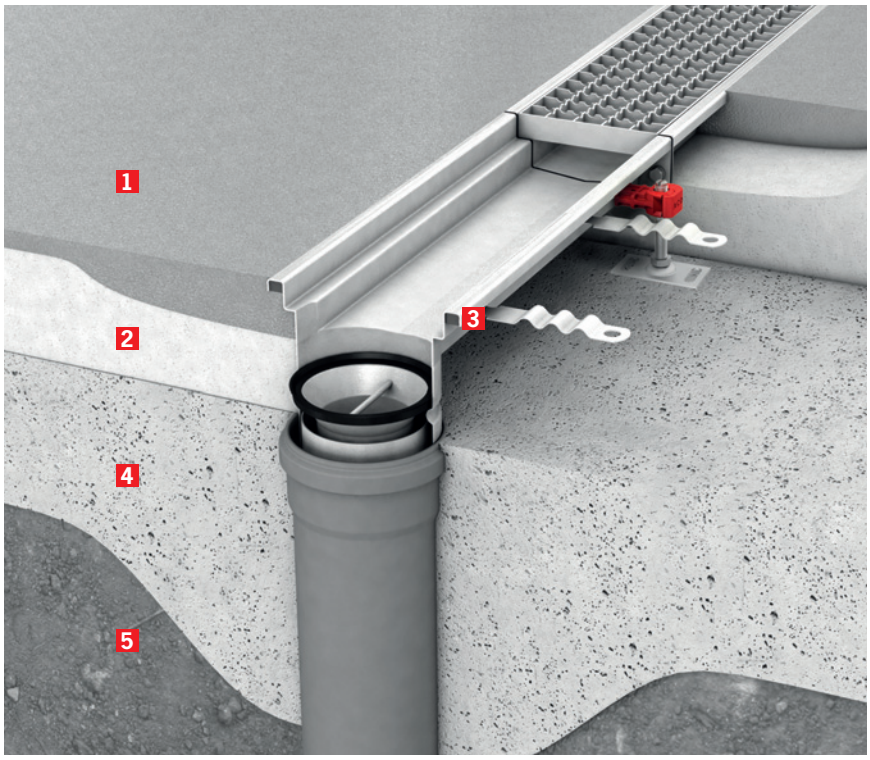
ACO modular box channel vinyl type – ACO hygienic gully with location flange (Vinyl floor)

1 Vinyl floor
2 Vinyl seal
3 Floor screed
4 Solid concrete floor slab
5 Compacted soil



ACO modular box channel standard type – direct connection to sewage pipe system (Resin floor)

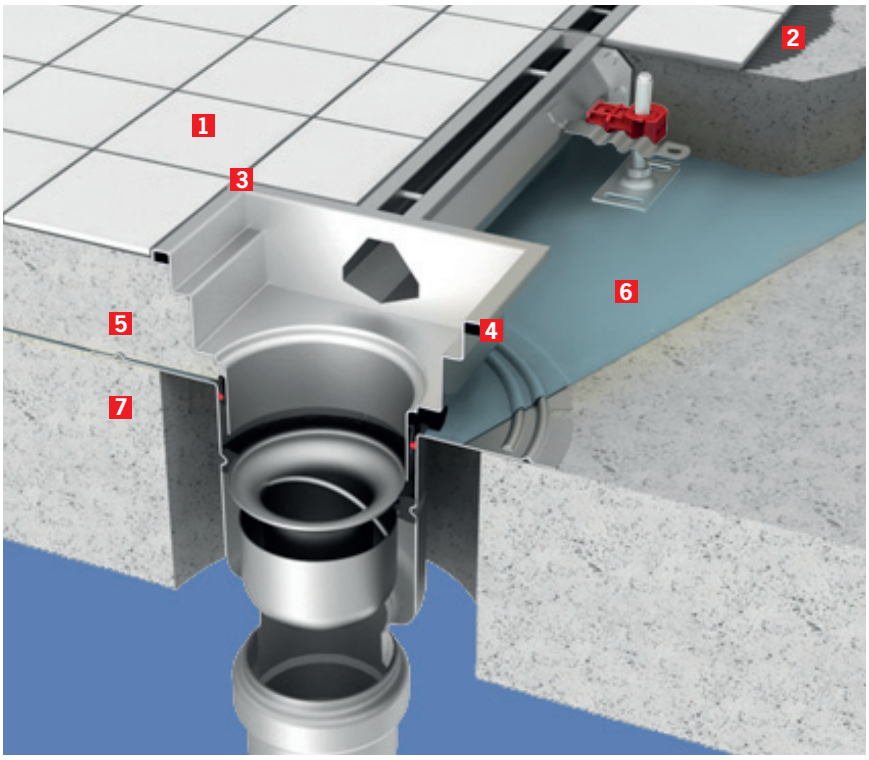
1 Epoxy/resin floor
2 Floor screed
3 Rubber infill
4 Solid concrete floor slab
5 Compacted soil



ACO modular slot channel

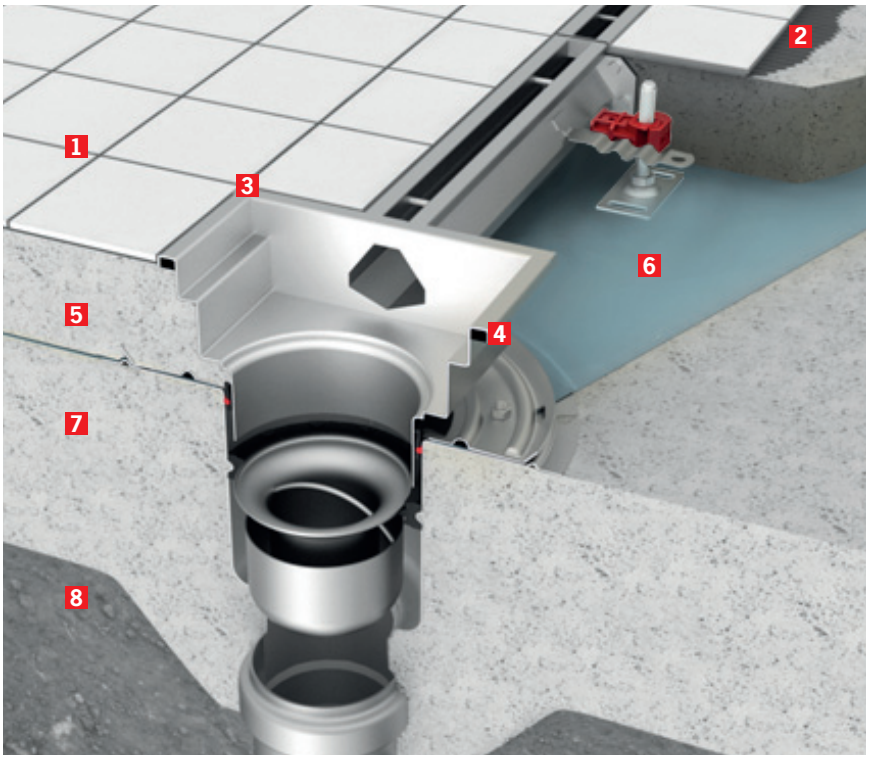
ACO modular slot channel standard type – ACO hygienic gully with adhesive bonding flange (Tiled floor)

1 Ceramic tiles
2 Tile cement
3 Mastic sealant
4 Rubber infill
5 Floor screed
6 Water proof membrane
7 Solid concrete floor slab



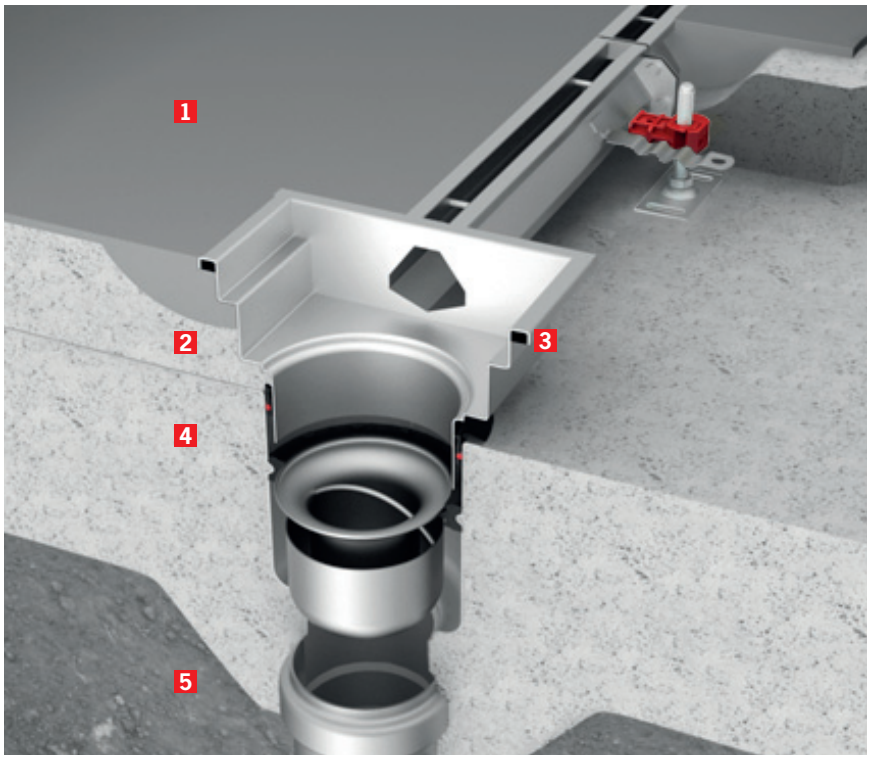
ACO modular slot channel standard type – ACO hygienic gully with mechanical clamping flange (Tiled floor)

1 Ceramic tiles
2 Tile cement
3 Mastic sealant
4 Rubber infill
5 Floor screed
6 Water proof membrane
7 Solid concrete floor slab
8 Compacted soil



ACO modular slot channel standard type – ACO hygienic gully with location flange (Resin floor)

1 Epoxy/resin floor
2 Floor screed
3 Rubber infill
4 Solid concrete floor slab
5 Compacted soil



ACO pipe

Generally

The following standards will help designers to select the correct size of pipe system for a particular application: EN 12056: gravity drainage systems inside buildings. EN 752: drain and sewer systems outside buildings. Installation should be in accordance with the manufacturer's recommendations as well as with EN 12056–2, EN 12056–3 and EN 752.

Pipe cutting
If it is necessary to adapt or shorten pipe lengths where tools are used, the cut must be square, clean and chamfered.

Suitable cutters are available from ACO.

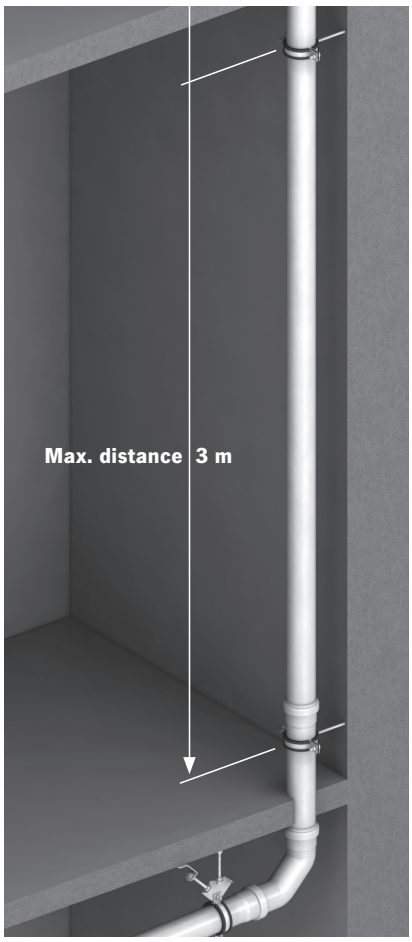
These tools are designed to form the edge bevel on the male spigoted end of the pipe. Carbon steel cutting wheels are not suitable.

Pipe jointing
The assembly of pipe joints is quick and straightforward requiring only a light application of lubricant available from ACO to the chamfered pipe end. Ensure that the matching ends of the pipes and fittings are clean and free from contamination. Push-fit the pipe end into the socket, but do not push fully into the socket recess so as to allow for thermal expansion within the system.

Vertical pipe stacks

The load applied with a fluid in the pipe is vertically down. Position the highest bracket adjacent to the top inlet of the pipe, then mount brackets at 3 meter spacings. At the bottom of the vertical pipe, use a bracket within 200 mm of the bottom. Fit brackets at each change of pipework is direction or junction points. Pipework should be at least 30 mm from the wall to facilitate maintenance and painting.

Pipe weights
Engineers should be aware of minimum and maximum weights when designing vertical stack and horizontal pipe run systems. Generally, when the pipe is completely full of water, then the vertical deflection of the pipe between brackets should not exceed 1.5 mm. The discretion of the installer should be applied in each instance to ensure that the pipe is adequately supported.



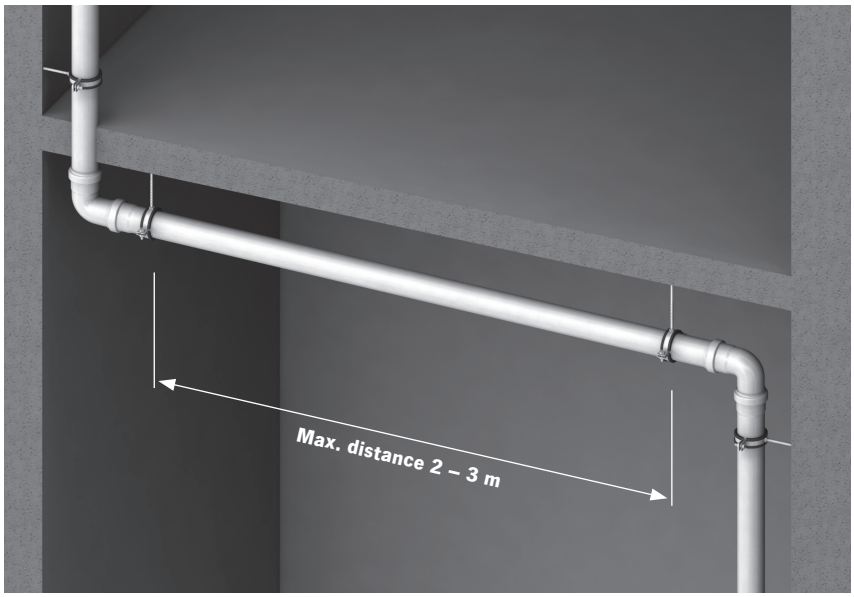
Horizontal pipe runs

As a guide, use the table below for bracket spacing on horizontal pipes.

Pipe diameter bracket spacing*

Pipe Ø [mm]	Length [m]
50	2.0
75	2.3
110	2.5
125	3.0
200	3.0
250	3.0

Recommended distances; for installation follow your local standards.



Horizontal pipework should be supported by pipe brackets in 3 meter intervals maximum. One bracket should be within 300 mm of the pipe joint and the other approximately at the midpoint of the pipe length, but not more than 3 metres from the next bracket (depending on the pipe diameter- refer to the upper table).

Additional brackets should be used at changes of direction and at junction points immediately downstream of the fitting. Horizontal pipe runs may be installed at a fall of 1 in 50 and feeder connections should be achieved using 45° branches. Where long pipe runs occur i.e. greater than 15 meters, a fixing arm should be attached to the bracket to prevent pendulum movement within the system.

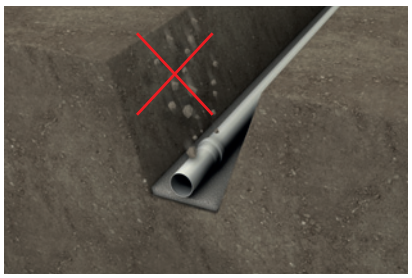
Bellow ground installation

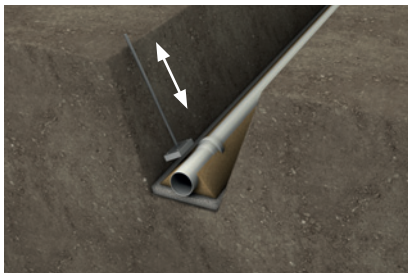
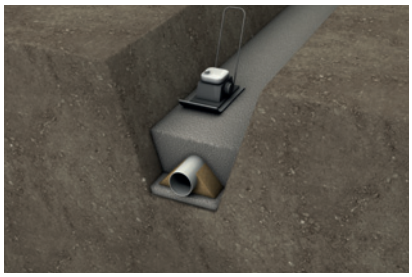
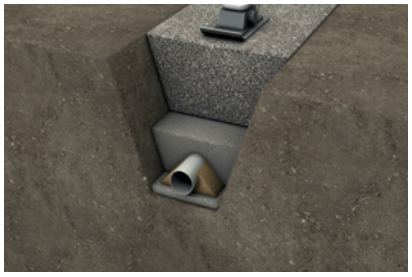
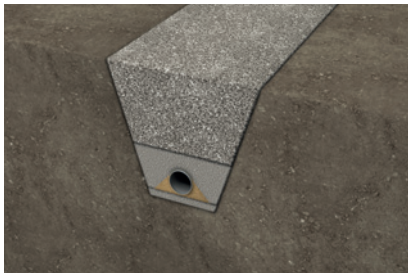
Back-filling
Back-filling around the pipe can only start when the position of the pipe has been checked and approved.

Compression
Care should be taken to avoid distortion of both the pipe run and the pipe itself during back-filling and compaction. Avoid tipping backfill material directly onto the pipe system. If mechanical compaction is used, the weight and resultant compressive force must be taken into account to avoid distortion. Back-fill materials should be compacted to a minimum of 93%.

Filling in the excavation
Soil from the excavation can be used for filling, but larger stones and blocks should not be used. Compression of the filling material outside reinforced areas is not necessary if the settling will not cause problems or damage.

Local standards
It is recommended to install pipes according to local standards.




Material

Resistance of material

1 = Very good service to operating limit of material 2 = Moderate service 3 = Limited or variable service 4 = Unsatisfactory	AISI 316 L Stainless	AISI 304 Stainless	EPDM	NBR	FPM
Acetone	1	1	1	4	4
Acetic acid (diluted) 30%	1	1	1	2	2
Acetic acid 100%	1	1	1	3	3
Acetic acid anhydride	1	1	2	3	4
Aluminium chloride	4	4	1	1	1
Aluminium sulfate	1	4	1	1	1
Ammonium carbonate	1	1	1	4	-
Ammonium chloride	2	3	1	1	-
Ammonium hydroxide	1	1	1	4	2
Amyl chloride	1	1	-	-	-
Anilin	1	1	2	4	3
Anilin hydrochloride	4	4	2	2	2
Barium chloride	2	2	1	1	1
Barium hydroxide	1	1	1	1	1
Benzaldehyde	1	1	1	4	4
Benzene	1	1	4	4	1
Benzoic acid	1	1	-	-	1
Borax	1	1	1	2	1
Boric acid	1	1	1	1	1
Bromine	4	4	-	-	1
Bromine chloride acid	4	4	1	2	1
Bromine hydrogen acid	4	4	1	4	1
Bromoethylene	1	1	-	-	-
Butanol	1	1	4	1	1
Butyl acetat	1	1	2	-	4
Butyric acid	1	1	-	-	-
Calcium bisulfate el sulfite	1	1	4	1	1
Calcium chloride	2	2	1	1	1
Calcium hydroxide	1	1	1	1	1
Calcium hypoklorite	2	3	1	3	1
Carbon disulfide	1	1	-	-	-
Carbon tetrachloride	1	1	4	3	1
Chloracetic acid (mono)	4	4	2	-	-
Chloride	4	4	-	-	-
Chloril acid	4	4	-	-	-
Chlorine (dry)	1	1	-	-	1
Chlorobenzene	1	1	4	4	1
Chloroform	2	2	4	4	1
Chlorosulfonic acid	2	3	4	4	3
Copper chloride	2	2	1	1	1
Copper nitrate	1	1	-	-	-
Copper sulfate	1	1	1	1	1
Ether	1	1	-	-	-
Ethyl chloride	1	1	1	1	1
Fatty acid	1	1	4	2	1
Flouiner (dry)	1	1	-	-	-
Flourine hydrogen acid	4	4	2	4	1
Formaldehyde	1	1	1	2	1
Formic acid	1	1	1	2	3
Furfural	1	1	2	4	4
Gallic acid	1	1	2	2	1
Hydrochloric acid	4	4	1	4	1
Hydrogen peroxide	1	1	3	4	2
Iodine (wet)	4	4	-	-	-
Lead acetate	1	1	1	2	-

Note:
Concentration levels and length of exposure have a direct influence on the resistance of stainless steel to certain chemicals. Each application should therefore be carefully reviewed to determine the suitability of stainless steel.

Assumptions:
Data presented are used as a guide only, for detailed information please contact our Sales/Technical department.

Resistance of material

1 = Very good service to operating limit of material 2 = Moderate service 3 = Limited or variable service 4 = Unsatisfactory	AISI 316 L Stainless	AISI 304 Stainless	EPDM	NBR	FPM
Magnesium chloride	2	2	1	1	1
Magnesium sulfate	1	1	1	1	1
Mercury	1	1	1	1	1
Methanol	1	1	1	1	3
Methyl chloride	1	1	3	4	1
Methylene chloride	2	2	4	4	2
Natphalene	1	1	4	4	1
Nickel chloride	2	2	1	1	1
Nickel sulfate	1	1	1	1	1
Nitric acid	3	3	3	4	1
Oxalic acid	3	3	1	2	1
Perchloric acid	4	4	2	-	1
Phorsphor acid	1	1	2	4	1
Picric acid	1	1	2	2	1
Potassium bromide	1	1	-	-	-
Potassium carbonate	1	1	-	-	-
Potassium chlorate	1	1	-	-	-
Potassium cyanide	1	1	1	1	1
Potassium hydroxide	1	1	1	2	2
Potassium nitrate	1	1	1	1	1
Potassium permanganate	1	1	-	-	-
Potassium sulfate	1	1	1	1	1
Potassium sulfide	1	1	-	-	-
Potassiumchloride	2	2	1	1	1
Prophylene dichloride	1	1	-	-	-
Sal ammoniac	2	3	1	1	-
Silver nitrate	1	1	1	2	1
Soda (ash)	1	1	-	-	-
Sodium acetate	1	1	1	2	4
Sodium bicarbonate	1	1	1	1	1
Sodium bisulfate	1	3	-	-	-
Sodium bisulfite	1	1	1	1	1
Sodium bromide	2	2	-	-	-
Sodium chlorate	1	1	-	-	-
Sodium chloride	4	4	-	-	-
Sodium cyanide	1	1	1	1	1
Sodium fluoride	1	1	-	-	-
Sodium hydroxide	1	1	1	2	2
Sodium hypoklorite	4	4	2	2	1
Sodium nitrate	1	1	1	2	-
Sodium sulfate	1	1	1	1	1
Sodium sulfide	1	1	-	-	-
Sodium sulfite	1	1	-	-	-
Stannicous chloride	2	3	2	1	1
Sulfur	1	1	1	4	1
Sulfur chloride	1	1	4	3	1
Sulfur dioxide	1	2	1	4	1
Sulfuric acid	4	4	2	4	1
Sulfurous acid	1	3	2	2	1
Tionyl chloride	1	1	4	-	1
Toluene (toluol)	1	1	4	4	1
Trichloroethylene	1	1	4	3	1
Turpentine	1	1	4	1	1
Xylene (xylol)	1	1	-	-	-
Zinc sulfate	1	1	-	-	-

Note:
Concentration levels and length of exposure have a direct influence on the resistance of stainless steel to certain chemicals. Each application should therefore be carefully reviewed to determine the suitability of stainless steel.

Assumptions:
Data presented are used as a guide only, for detailed information please contact our Sales/Technical department.

Sealing material information

EPDM (ethylene propylene diene monomer)
Black sealing rubber ring, which is suitable for most applications where there are no oil or petrol residues in the waste water.

NBR (acryl nitrile-butadiene rubber)
Black sealing rubber ring which is suitable for waste water applications where there are petrol or oil residues. NBR is not resistant to solvents and high temperatures.

FPM (fluoroelastomer) – Viton®
Green sealing rubber ring which is suitable for special applications where oil, solvents and strong acids are present in waste water; and for applications with higher temperatures. Viton® seal has limited resistance to chemicals like acetone, methyl alcohol.

Rubber type	Sealing materials		
	EPDM	NBR	FPM (Viton)
Colour	black	black	green
Temperature range	-50 / +130 / +150 °C	-30 / +80 / +100 °C	-20 / +200 / +300 °C
Resistance			
Water	excellent	good	good
Chemicals			
Acids	good	fair	excellent
Bases	good	fair	excellent
Benzene/Petrol	unsatisfied	excellent	excellent
Oils			
ASTM Oil No. 1	unsatisfied	excellent	excellent
ASTM Oil No. 3	unsatisfied	excellent	excellent
Ozone & weather stresses	good	limited	good

To be sure of suitability for special applications please consult exact seal material features within ACO installation guide.

Notes

ACO Industries k.s.
Havlickova 260
582 22 Pribyslav
Czech Republic

www.aco.com
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