ACO Building Drainage Products

Floor Gullies





ACO GULLY

Technical Handbook and Product Catalogue



Stainless steel bucket traps

Stainless steel floor wastes



The ACO Group

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

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

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

ACO Gully

A range of stainless steel floor gullies with a variety of grates and bodies for vertical or horizontal pipe connections.

ACO's stainless steel gullies are compliant to AS 3495 and are manufactured and tested in accordance with EN 1253 – Gullies for buildings.

In addition to this, all products have WaterMark approval. This is granted to products that comply to AS 5200.000 or AS 3495 and certified in accordance with ISO/IEC Guide 67.2004, System 1b.



A range of cast iron roof and floor gullies is also available from the ACO Wexel range. For more information, contact ACO.

Areas of application

- **■** Kitchens
- **Food processing factories**
- Brewing, bottling and canning plants
- Chilled warehouses
- Laboratories
- Pharmaceutical and Chemical plants
- Indoor sport centres
- Human and animal healthcare <u>facilities</u>



ACO. The future of drainage.

System Chain

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

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



Service Chain

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

Services include full in-house project specific design services, field support and post-installation advice. Product training and continuing professional education seminars provide updates to the design community in the latest product innovation.



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Introduction

ACO Gully is a range of fixed and adjustable height stainless steel floor wastes, designed for use in commercial and industrial projects where hygiene, durability and performance requirements are paramount.

A variety of products are available to suit a range of applications, including a choice of stainless steel bucket traps, grates and internal foul air traps (FATs) for where construction height is limited.

Range includes

- 1. Gullies to suit 200mm, 300mm square and round grates
- 2. Gullies for DN100, DN150 horizontal and vertical pipe connection
- **3.** Gullies in fixed height or adjustable height styles
- **4.** A full range of grates, bucket traps and accessories

The benefits

- Designed for optimum hygiene performance to EN 1672, EN ISO 14159 and EHEDG guidelines
- Deep drawn bodies enable full drainage, eliminating stagnant wastewater, smells and microbial growth
- Pickle passivated, and therefore highly corrosion resistant
- Resistant to temperature extremes and shocks
- Linished for optimal aesthetics
- Load compliant and slip resistant grates
- Optional AS 3495 compliant internal foul air traps for limited depth applications

Load class

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

EN 1253 – Gullies for buildings

1. Scope

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

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

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

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

1. Type of traffic

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

2. Wheel type

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

Frequency and speed of traffic More frequent and faster traffic can intensify the load.

4. Position of gully

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



| 林 | *** | ••• | | | |
|--|---|--|--|--|--|
| EN 1253 – Gullie Load Classes | s for buildings | | | | |
| H1.5 | K3 3kN | L15 | R50 ¹ 50kN | M125 125kN | No classification exists |
| Non-load bearing areas, inaccessible to all types of traffic | Pedestrian areas, change rooms, toilets and areas inaccessible to regular vehicular traffic | Light commercial and industrial areas inaccessible to solid tyres | Light commercial and industrial areas accessible to solid tyres | Commercial and industrial areas accessible to solid tyres and pallet jacks | Commercial and industrial areas subject to heavy traffic |
| Slow moving wheel l | oad (Pneumatic tyres) | | | | |
| N/A | 150kg | 700kg | 2500kg | 5000kg | 8000kg |
| Slow moving wheel l | oad (Solid tyres) | | | | |
| N/A | N/A | N/A | 500kg | 750kg | 1000kg |
| Equivalent class | ification to AS 399 | 6 – Access Covers | and Grates | | |
| Load Classes | | | | | |
| | A 10kN | | B 80kN | C 150kN | D 210kN |



Note: For higher load classes contact ACO.

Standards

Hygiene

In order to maintain a clean and hygienic environment, it is essential that drainage elements are designed and manufactured to minimise bacteria traps.

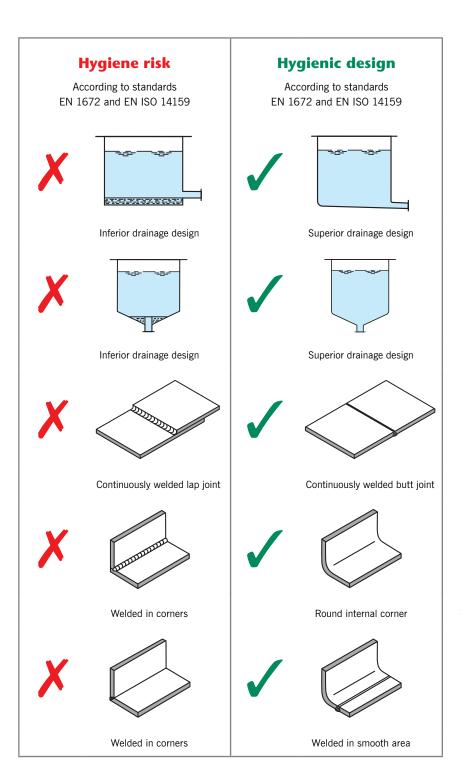
ACO Gully is designed for optimum hygiene performance, taking into account guidelines described in EN 1672, EN ISO 14159 and the European Hygienic Engineering and Design Group (EHEDG).

EN 1672 and EN ISO 14159 are standards that set out hygiene requirements for use in food processing.

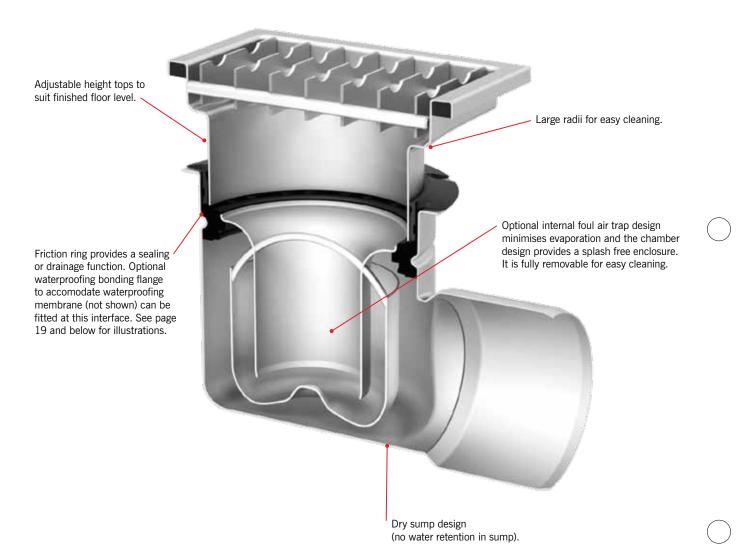
EHEDG is a consortium of food industries, public health authorities, research institutes and equipment manufacturers. Their mission is to promote hygiene through improved hygienic engineering and design relating to all aspects of food manufacture. EHEDG principles are being recognised by designers and planners worldwide, including Australia.

Slip resistance

Slip resistant grates are recommended for installation in commercial kitchen and food processing area's to reduce the risk of serious injury were high temperature food and equipment is used.



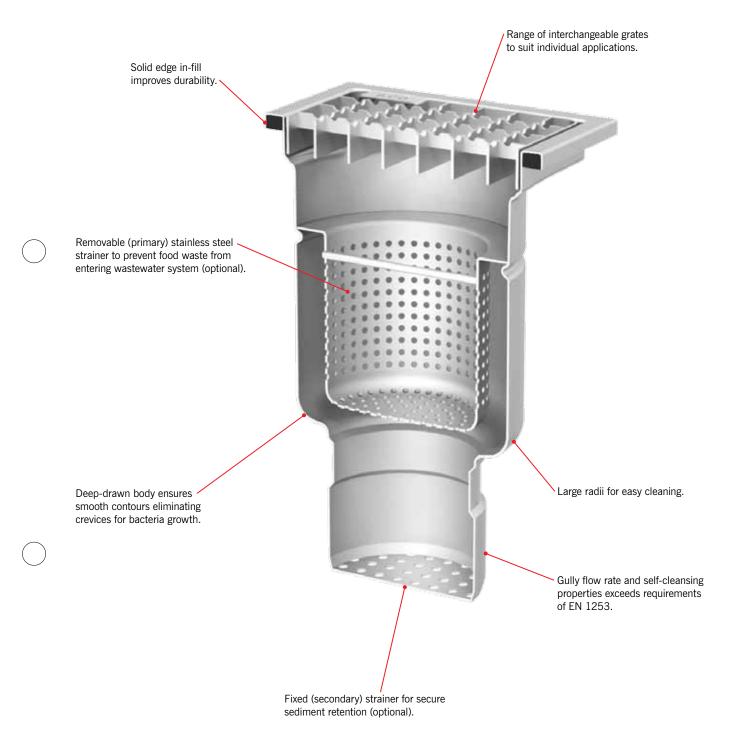
Adjustable height gully features



Friction ring



Fixed height gully features

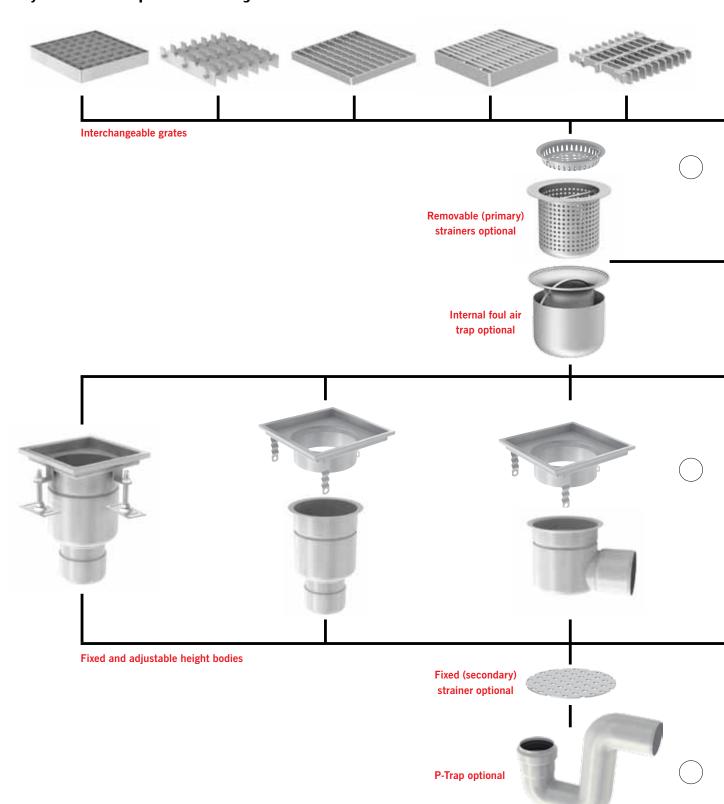


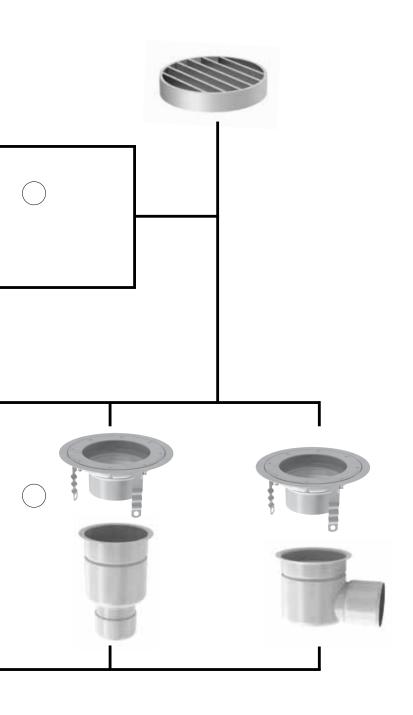
System overview - fixed and adjustable height gullies

ACO Gully is available in a number of versions featuring different sizes, flow rates, grate designs and outlet diameters to suit various applications. ACO offers five gully configurations as shown below.

Gully 157 - 200mm square and round grates

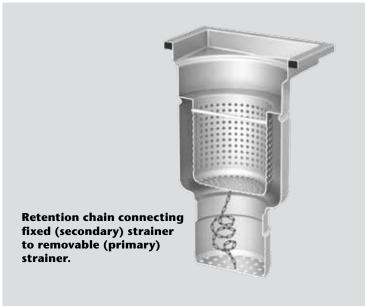
Gully 218 – 300mm square and round grates

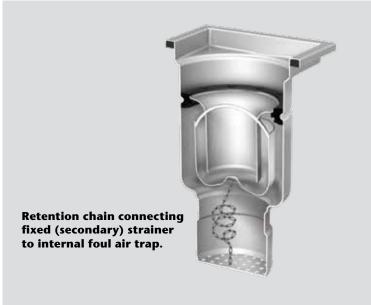


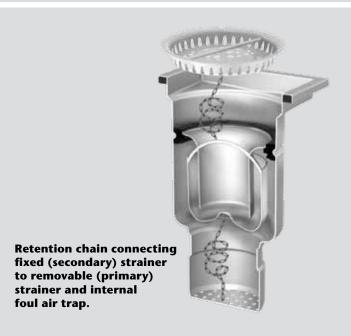


Component security

To ensure components are not misplaced during routine maintenance and cleaning, secure retention cables are available in a number of configurations. See pages 11 and 13 for all available options.







Parts table: ACO Gully 157 - Bodies for 200mm grates

ACO Gully 157 – Fixed height body with vertical outlet (To suit grates on page 11)

| | | Top Size (type) (mm) | Pipe DN/OD (mm) | Internal foul air trap | Weight (kg) | Stainless steel grade | Part No. | |
|---|------|-------------------------|--------------------|---------------------------|----------------|--------------------------|----------|--------|
| | 200 | | | Without | 0.2 | 304 | 142039 | |
| İ | 461 | 200 x 200 | 200 x 200 | 100/110 | Without | 2.3 | 316 | 142040 |
| | 8 | (square) | 100/110 | With | 3.0 | 304 | 142041 | |
| | Ø157 | | | VVILTI | 3.0 | 316 | 142042 | |

ACO Gully 157 – Adjustable height body with vertical outlet (To suit grates on page 11)

| | | Top Size (type) (mm) | Pipe DN/OD (mm) | Internal foul air trap | Weight (kg) | Stainless steel grade | Part No. | | | |
|----|------------------|-------------------------|--------------------|---------------------------|----------------|--------------------------|----------|-----|-----|--------|
| | Ø200 2- 8- | | | Without | 2.8 | 304 | 141976 | | | |
| | 228 - 248 | 200 x 200 | 100/110 | Without | 2.0 | 316 | 141977 | | | |
| | 000 | (square) | (square) | (square) | (square) | (square) | With | 3.5 | 304 | 141978 |
| | Ø157 | | | With | 3.3 | 316 | 141979 | | | |
| | 289 | | | Without | 3.4 | 304 | 141988 | | | |
| C. | 58 - 248 | 200 Dia. |) 100/110 | 10 | 3.4 | 316 | 141989 | | | |
| | 96 | (round - vinyl) | | | | 304 | 141990 | | | |
| | Ø157 | | | With | 4.1 | 316 | 141991 | | | |

ACO Gully 157 – Adjustable height body with horizontal outlet (To suit grate on page 11)

| | | Top Size (type) (mm) | Pipe DN/OD (mm) | Internal foul air trap | Weight (kg) | Stainless steel grade | Part No. | | |
|---|----------|-------------------------|--------------------|---------------------------|----------------|--------------------------|----------|-----|--------|
| | 200 | | | \\/ithout | 3.7 | 304 | 141980 | | |
| 1 | 28-78 | 200 x 200 | 100/110 | Without | | 316 | 141981 | | |
| 1 | 11.00 | (square) | (square) | (square) | 100/110 | With | 4.4 | 304 | 141982 |
| | 0157 169 | | | VVILII | 4.4 | 316 | 141983 | | |
| | Ø289 | | 100/110 | | 4.3 | 304 | 141984 | | |
| | 88. 100 | 200 Dia. | | | | 316 | 141985 | | |
| | 125 | (round - vinyl) | | | 5.0 | 304 | 141986 | | |
| | Ø157 169 | | | With | 5.0 | 316 | 141987 | | |

Parts table: ACO Gully 157 - Grates and accessories

ACO Gully 157 - Grates

| | | Grate type | Load Class EN 1253 | Surface type | Grate intake (mm²) | Weight (kg) | Stainless steel grade | Part No. |
|--|--|---------------|-----------------------|-------------------|-----------------------|----------------|--------------------------|------------------|
| | 168 | Mesh | L15 | Slip resistant | 22,820 | 0.8 | 304 316 | 408090 408190 |
| | 99 | iviesii | LIS | Plain | 22,620 | 0.8 | 304 316 | 408091 408191 |
| -14/100- | 8 | Arla | L15 | Slip resistant | 21,840 | 0.7 | 304 316 | 408023 408123 |
| | 89. | 5 Star | L15 | Slip resistant | 13,144 | 1.1 | 304 | 142009 |
| | 168 | | R50 ¹ | Slip | 20,200 | 1.6 | 304 316 | 416912 416913 |
| | 99 | Ladder | M125 | resistant | 18,600 | 1.9 | 304 316 | 408093 408193 |
| | | | D2101 | Plain | 17,020 | 2.2 | 304 316 | 408043 408143 |
| N. STATE OF THE PARTY OF THE PA | 168 100000000 2 2 2 2 2 3 | Cast | M125 | Slip resistant | 15,050 | 2.1 | 304 | 416942 |
| | 01.10 | Ladder | M125 | Plain | 16,000 | 1.6 | 304 316 | 97146 97367 |

 $^{^{1}\}mbox{R50}$ is referenced in prEn 1253, D210 is referenced in AS 3996. (See page 4)

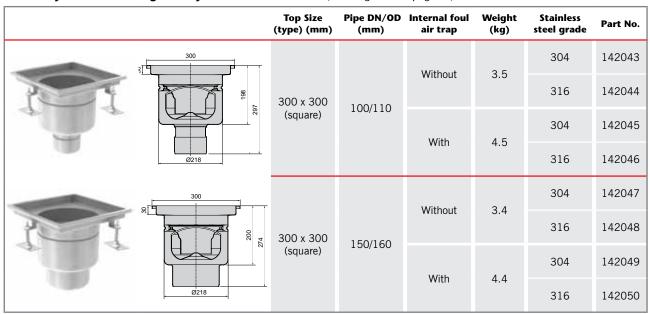
ACO Gully 157 - Accessories

| | | Weight (kg) | Stainless steel grade | Part No. |
|--------------------|---|----------------|--------------------------|------------------|
| | 0.3 litre removable (primary) strainer | 0.3 | 304 316 | 408203 408213 |
| Strainers | 1.0 litre removable (primary) strainer | 0.6 | 304 316 | 413026 413027 |
| | Fixed (secondary) strainer to suit a 110mm outlet | 0.1 | 316 | 142001 |
| | Retention chain connecting fixed (secondary) strainer to FAT ¹ | | | 142002 |
| | Retention chain connecting fixed (secondary) strainer to removable (primary) strainer | | | 142003 |
| Retention chains | Retention chain connecting to FAT1 to removable (primary) strainer | 0.1 | 316 | 142004 |
| | Retention chain connecting removable (primary) strainer to grate | | | 142005 |
| | Retention chain connecting removable FAT ¹ to grate | | | 142006 |
| | P-Trap – 110mm diameter | 1.3 | 316 | 98876 |
| Other ² | Straight coupling – 110mm diameter, 84mm length | 0.4 | 316 | 98974 |
| | Waterproof bonding flange (adjustable height gullies only) ³ | 1.9 | 304 316 | 408206 408216 |

¹FAT denotes – internal foul air trap. ²Rodding eye (See page 14). ³ From 100mm up to 180 mm will be added to gully depth. (See page 19 for illustration).

Parts table: ACO Gully 218 - Bodies for 300mm grates

ACO Gully 218 - Fixed height body with vertical outlet (To suit grates on page 13)



ACO Gully 218 - Adjustable height body with vertical outlet (To suit grates on page 13)

| | Top Size (type) (mm) | Pipe DN/OD (mm) | Internal foul air trap | Weight (kg) | Stainless steel grade | Part No. | |
|--------------------------|-------------------------|--------------------|---------------------------|----------------|--------------------------|----------|--------|
| 300 | | | Without | 4.8 | 304 | 141992 | |
| 333 259 | 300 x 300 | 150/160 | Without | | 316 | 141993 | |
| 42 | (square) | (square) | (square) | With | 5.8 | 304 | 141994 |
| Ø218 | | | With | 5.0 | 316 | 141995 | |
| Ø350 2 T(100 11 11 11 | | | Without | 4.8 | 304 | 141996 | |
| 63.283 | 300 Dia. | 150/160 | | | 316 | 141997 | |
| | (round-vinyl) | 150/160 | With | | 304 | 141998 | |
| 0218 | | | VVILTI | 5.8 | 316 | 141999 | |

Parts table: ACO Gully 218 - Grates and accessories

ACO Gully 218 - Grates

| | | Grate type | Load Class EN 1253 | Surface type | Grate Intake (mm²) | Weight (kg) | Stainless steel grade | Part No. |
|--|--|---------------|-----------------------|-------------------|-----------------------|----------------|--------------------------|------------------|
| | 268 | Mesh | L15 | Slip resistant | 59,000 | 2.1 | 304 316 | 408034 408134 |
| | 268 | WCSII | 213 | Plain | 33,000 | 2.1 | 304 316 | 408035 408135 |
| -15 | 268 | Arla | L15 | Slip resistant | 57,350 | 1.8 | 304 316 | 408041 408141 |
| | 268 | 5 Star | L15 | Slip resistant | 36,060 | 4.1 | 304 | 142010 |
| - | 268 | | R50 ¹ | Slip resistant | 56,720 | 3.5 | 304 316 | 416916 416917 |
| | 788 | Ladder | M125 | Slip resistant | 53,640 | 4.3 | 304 316 | 408037 408137 |
| | | | D210 ¹ | Plain | 45,880 | 6.2 | 304 316 | 408045 408145 |
| A STATE OF THE PARTY OF THE PAR | 268 100000000000 100000000000 10000000000 | Cast | M125 | Slip resistant | 39,300 | 5.6 | 304 | 416944 |
| DEC is referenced in put n 1 | 253 P310 in referenced | Ladder | M125 | Plain | 28,010 | 2.4 | 304 316 | 97148 97388 |

¹R50 is referenced in prEn 1253, D210 is referenced in AS 3996. (See page 4)

ACO Gully 218 - Accessories

| | | Weight (kg) | Stainless steel grade | Part No. |
|--------------------|---|----------------|--------------------------|------------------|
| | 0.7 litre removable (primary) strainer | 0.6 | 304 316 | 408223 408233 |
| Strainers | 2.0 litre removable (primary) strainer | 0.9 | 304 316 | 413028 413029 |
| | Fixed (secondary) strainer to suit a 110mm outlet | 0.1 | 316 | 142001 |
| | Fixed (secondary) strainer to suit a 160mm outlet | 0.1 | 310 | 142008 |
| | Retention chain connecting fixed (secondary) strainer to FAT ¹ | | | 142002 |
| | Retention chain connecting fixed (secondary) strainer to removable (primary) strainer | 0.1 | 316 | 142003 |
| Retention chains | Retention chain connecting FAT 1 to removable (primary) strainer | | | 142004 |
| | Retention chain connecting removable (primary) strainer to grate | | | 142005 |
| | Retention chain connecting removable FAT¹ to grate | | | 142006 |
| | P-Trap – 110mm diameter | 1.3 | 316 | 98876 |
| | P-Trap – 160mm diameter | 1.3 | 310 | 98878 |
| Other ² | Straight coupling – 110mm diameter, 84mm length | 0.4 | 316 | 98974 |
| | Straight coupling – 160mm diameter, 84mm length | 0.8 | 310 | 98976 |
| | Waterproof bonding flange (adjustable height gullies only) ³ | 2.5 | 304 316 | 408226 408236 |

¹FAT denotes – internal foul air trap. ²Rodding eye (See page 14). ³ From 100mm up to 180mm will be added to gully depth. (See page 19 for illustration).

Cleaning and maintenance

Inspection and rodding

A rodding eye is an access point in a drainage system that is used to inspect and rod blocked drainage pipes. This is useful when pipes are located in areas where usual inspection and rodding are not possible, for example with a fixed (secondary) strainer.



Cleaning methods

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

Acids should only be used for on-site cleaning when all other methods have been proved unsatisfactory. Rubber gloves should be used and care taken to ensure acid cleaners are not spilt over adjacent areas.

Special precautions are necessary with oxalic acid and solvents should not be used in closed spaces without adequate ventilation. Manufacturer's directions should always be followed.

If the suggestions in the table below have been attempted and the result is still unsatisfactory, stainless steel is able to be mechanically cleaned by specialists on site. Please contact ACO for further information.

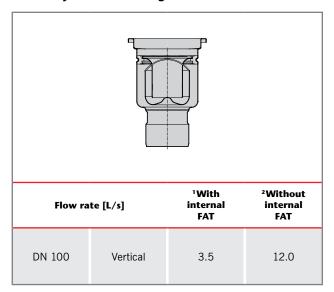
Rodding eye

| | DN/OD nm) | Weight (kg) | Stainless steel grade | Part No. |
|----|--------------|----------------|--------------------------|----------|
| 10 | 0/110 | 1.5 | 316 | 416998 |

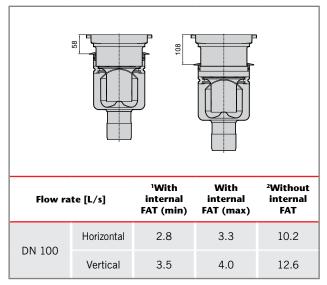
| Problem | Cleaning agent | Comment |
|-------------------------------------|--|--|
| Routine cleaning, all finishes. | Soap or mild detergent and water (such as dishwashing liquid). | Sponge, rinse with clean water, wipe dry if necessary. |
| Fingerprints, all finishes. | Soap or warm water or organic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

Hydraulics flow rates

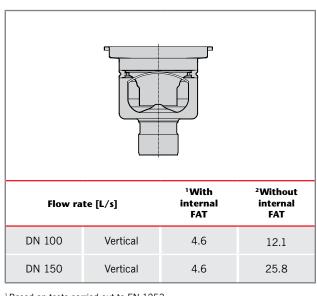
ACO Gully 157 – fixed height



ACO Gully 157 - adjustable height



ACO Gully 218 - fixed height

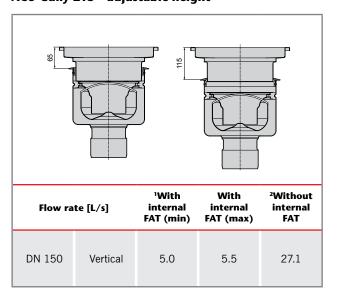


$^{\rm 1}\textsc{Based}$ on tests carried out to EN 1253.

Note: Fixed and removable strainers will reduce flow rates.

FAT denotes internal foul air trap.

ACO Gully 218 – adjustable height



² Based on theoretical calculation with a 20mm head of water above grate.

Stainless steel resistance table

The corrosion resistance information contained within this table is indicative only. All data is based on reactions noted at an ambient temperature of 20° C. Higher temperatures will generally reduce the corrosion resistance of the materials.

- ✓ Recommended
- ? Suitable, contact ACO for further advice
- × Not recommended
- ➤ No data available

| Reagent | Stainless Steel 304 | Stainless Steel 316 |
|---------------------------|---------------------------------------|------------------------|
| Acetic Acid 20% | ✓ | ✓ |
| Acetic Acid 80% | ✓ | ✓ |
| Acetone | ✓ | ✓ |
| Alcohol (Methyl or Ethyl) | ✓ | ✓ |
| Aluminium Chloride | ? | ? |
| Aluminium Sulphate | ✓ | ✓ |
| Ammonia Gas (Dry) | ✓ | ✓ |
| Ammonium Chloride | ? | ? |
| Ammonium Hydroxide | ✓ | ✓ |
| Ammonium Nitrate | ✓ | ✓ |
| Ammonium Phosphate | ✓ | ✓ |
| Ammonium Sulphate | ? | · / |
| Ammonium Sulphide | · · · · · · · · · · · · · · · · · · · | |
| Amyl Chloride | | |
| Aniline | • • • • • • • • • • • • • • • • • • • | . |
| Barium Chloride | . | ▼ |
| Darram Cimenae | ~ | ~ |
| Barium Hydroxide 10% | ~ ✓ | ~ |
| Barium Sulphate | | ~ |
| Barium Sulphide Beer | ~ ✓ | ~ |
| | * | * |
| Beet Sugar Liquors | ∀ | → |
| Benzene | √ | ✓ |
| Benzoic Acid | ✓ | ✓ |
| Bleach -12.5%Active C1 | ~ | ~ |
| Boric Acid | ✓ | ✓ |
| Bromic Acid | ? | ? |
| Bromine Water | X | X |
| Butane | \checkmark | ✓ |
| Calcium Carbonate | ✓ | ✓ |
| Calcium Chloride | X | ? |
| Calcium Hydroxide | ? | ✓ |
| Calcium Hypochlorite | X | ? |
| Calcium Sulphate | ✓ | ✓ |
| Cane Sugar Liquors | ~ | ~ |
| Carbon Acid | ~ | ~ |
| Carbon Bisulphide | ✓ | ✓ |
| Carbon Dioxide | ✓ | ✓ |
| Carbon Monoxide | ✓ | ✓ |

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

| Reagent | Stainless Steel 304 | Stainless Steel 316 |
|-------------------------|------------------------|------------------------|
| Hydrobromic Acid (20%) | x | Х |
| Hydrochloric Acid (40%) | X | X |
| Hydrocyanic Acid | ✓ | ✓ |
| Hydrogen Peroxide (90%) | ✓ | \checkmark |
| Hydroquinone | ~ | ~ |
| Hypochlorous Acid | ~ | ~ |
| lodine | X | ? |
| Kerosene | ✓ | ✓ |
| Lactic Acid 25% | ✓ | ✓ |
| Linseed Oil | ✓ | ✓ |
| Liqueurs | ~ | ~ |
| Magnesium Chloride | ? | ? |
| Magnesium Sulphate | ✓ | \checkmark |
| Maleic Acid | ? | ? |
| Methyl Chloride | ? | ? |
| Methyl Ethyl Ketone | ~ | ~ |
| Milk | \checkmark | ✓ |
| Minerals Oils | ~ | ~ |
| Muriatic Acid | X | X |
| Nickel Chloride | ? | ? |
| Nickel Sulphate | \checkmark | \checkmark |
| Oils and Fats | ✓ | ✓ |
| Oleic Acid | ✓ | ✓ |
| Oleum | ~ | ~ |
| Oxalic Acid | ? | ? |
| Palmitic Acid 10% | ~ | ~ |
| Perchloric Acid 10% | X | X |
| Perchloric Acid 70% | X | X |
| Petroleum Oils (Sour) | ✓ | ✓ |
| Phenol 5% | \checkmark | ✓ |
| Phosphorous Trichloride | \checkmark | ✓ |
| Photographic Solutions | ? | ? |
| Picric Acid | ✓ | ✓ |
| Plating Solutions | ~ | ~ |
| Potassium Carbonate | ✓ | ✓ |
| Potassium Chloride | ✓ | ✓ |
| Potassium Cyanide | ✓ | ✓ |
| Potassium Dichromate | ✓ | ✓ |
| Potassium Hydroxide | ✓ | ✓ |
| Potassium Permanganate | √ | ✓ |
| Potassium Sulphate | | <i>'</i> |
| Propane Gas | • | V |
| Propyl Alcohol | ~ | ~ |

| Reagent | Stainless Steel 304 | Stainless Steel 316 |
|-----------------------|------------------------|------------------------|
| Sea Water | Х | ? |
| Sewage | ? | ? |
| Silver Nitrate | ✓ | ✓ |
| Silver Sulphate | ✓ | ✓ |
| Sodium Bicarbonate | ✓ | ✓ |
| Sodium Bisulphite | ✓ | ✓ |
| Sodium Carbonate | ✓ | ✓ |
| Sodium Cyanide | ✓ | ✓ |
| Sodium Ferrocyanide | ~ | ~ |
| Sodium Hydroxide | ✓ | ✓ |
| Sodium Hypochlorite | ? | ✓ |
| Sodium Sulphate | ✓ | ✓ |
| Sodium Sulphide | ? | ✓ |
| Sodium Sulphite | ? | |
| Sodium Thiosulphate | | |
| Stannous Chloride | 7 | ? |
| Stearic Acid | | |
| Sulphite Liquor | ~ | ~ |
| Sulphurous Acid | ? | ? |
| Sulphur | ? | ✓ |
| Sulphur Dioxide (Dry) | ? | ✓ |
| Sulphur Dioxide (Wet) | 7 | · |
| Sulphuric Acid 50% | X | X |
| Sulphuric Acid 70% | x | x |
| Sulphuric Acid 93% | X | X |
| Tannic Acid | ✓ | \checkmark |
| Tanning Liquors | ✓ | ✓ |
| Tartaric Acid | ~ | ~ |
| Toluene | ~ | ~ |
| Trichloroethylene | ✓ | ✓ |
| Triethanolamine | ~ | ~ |
| Trisodium Phosphate | ~ | ~ |
| Turpentine | ✓ | ✓ |
| Urea | √ | √ |
| Urine | ✓ | ✓ |
| Vinegar | ✓ | ✓ |
| Water (Fresh) | ✓ | ✓ |
| Water (Mine) | ✓ | ✓ |
| Water (Salt) | ? | ? |
| Whisky | ✓ | ✓ |
| Wines | ✓ | ✓ |
| Xylene | ~ | ~ |
| Zinc Chloride | X | X |
| Zinc Sulphate | ? | ✓ |



Installation guide

Adjustable height gully in ground slab with resin floor finish connecting into stainless pipe and P-Trap.

- 1 Resin topping
- 2 Flexible sealant
- 3 Socketed pipe (by ACO)
- 4 P-Trap (by ACO)
- 5 Straight coupling (by ACO)
- 6 Soil
- 7 Ground slab



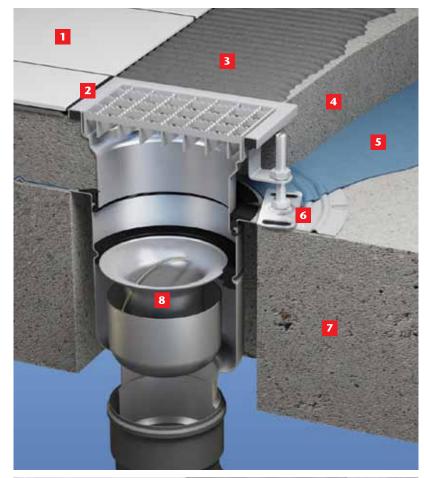
Adjustable height gully in ground slab with vinyl sheet floor finish connecting into stainless P-Trap and plastic pipe.

- 1 Vinyl sheeting
- 2 Screed
- 3 Flexible coupling
- 4 HDPE/PVC Pipe
- P-Trap (by ACO)
- 6 Straight coupling (by ACO)
- 7 Soil
- 8 Ground slab



Adjustable height gully with internal FAT in suspended slab with a tile floor finish connecting into stainless pipe.

- 1 Tile
- 2 Flexible sealant
- 3 Cement/tile adhesive
- 4 Screed
- 5 Waterproof membrane (liquid)
- 6 Waterproofing Bonding Flange
- 7 Suspended concrete slab
- 8 Internal FAT



Fixed height gully with horizontal outlet with internal FAT in ground slab with a tile floor finish connecting into stainless pipe.

- 1 Tile
- 2 Flexible sealant
- 3 Cement/tile adhesive
- 4 Screed
- 5 Waterproof membrane
- 6 Socketed pipe (by ACO)
- 7 Ground slab
- 8 Compacted soil
- 9 Internal FAT





ACO Building Drainage Products

ACO Building Drainage Products range comprises:

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Cast floor and roof drains

ACO Stainless

Industrial stainless steel linear drainage systems

ACO Food

Stainless steel drainage systems for food and beverage applications

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Stainless steel floor gullies

ACO Pipe

Stainless steel push-fit waste pipes

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

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