

Uniclass L5367	EPIC E482
Cl/SfB (71.3)	

ACO Water Management: Civils + Infrastructure

ACO Universal Channel Gully

- ✓ Provides fast and simple connection for all ACO channels up to 200mm bore width
- ✓ Modular system
- ✓ Trapped outlet connection for 150mm supersleeve and 160mm UPVC pipe
- ✓ Access, outfall and silt management function
- ✓ Optional connector for Ø450mm gullies
- ✓ Manufactured from recycled materials
- ✓ D 400 and F 900 options available to BS EN 1433



ACO Universal Channel Gully

High strength modular gully system for access, outfall and silt management

The ACO Universal Gully provides fast and simple connection between any channel size up to 200mm bore width in the ACO channel drainage range.

The high capacity system can be used for silt management and also as an outlet for the drainage system.

The ACO Universal Gully is manufactured from recycled plastic and available with either load class D 400 or F 900 ductile iron gratings and frames compliant to BS EN 1433:2002.

Typical applications

- ▶ Airports
- ▶ Distribution yards
- ▶ Industrial estates
- ▶ Parking areas
- ▶ Ports and docks
- ▶ Retail developments



ACO Universal Channel Gully

Features

- 1 Gully top includes frame, grating and intermediate channel connection unit
- 2 Silt bucket
- 3 Gully base including roddable foul air trap



Ductile iron frame and slotted grating available in Load Class D 400 and F 900 to BS EN 1433:2002

Cutting guide to suit all ACO channels up to 200mm bore

Removable plastic silt bucket

Manufactured from recycled polypropylene

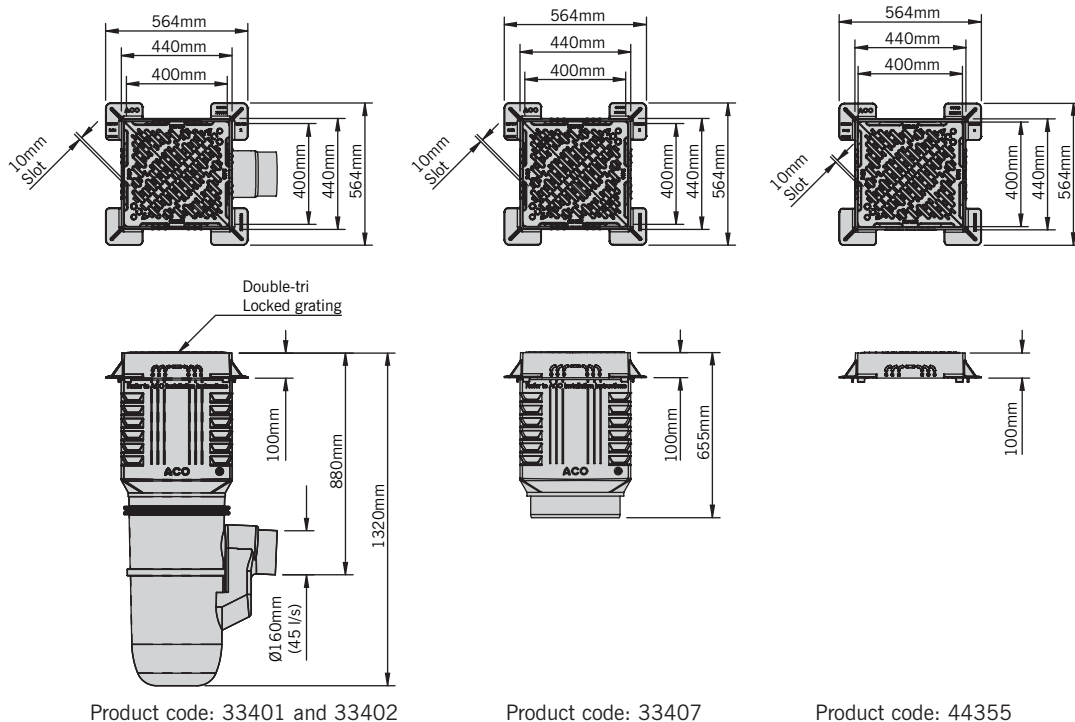
Plain UPVC 150mm - 160mm super sleeve pipe connection



ACO Universal Gully units - D 400 assemblies

Product code	Description	Length (m)	Width overall (m)	Depth overall (mm)	Invert (mm)	Slot width (mm)	Invert type	Weight (kg)
33401	Gully assembly and bucket 601D	440	440	1315	870	10	1	52.5
33402	Gully assembly no bucket 602D	440	440	1315	870	10	1	51
33407	Gully top assembly only 607D	440	440	655	-	10	1	45
44355	Grating and frame 600D	400*	564††	100	-	10	1	40

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■■■



Product code: 33401 and 33402

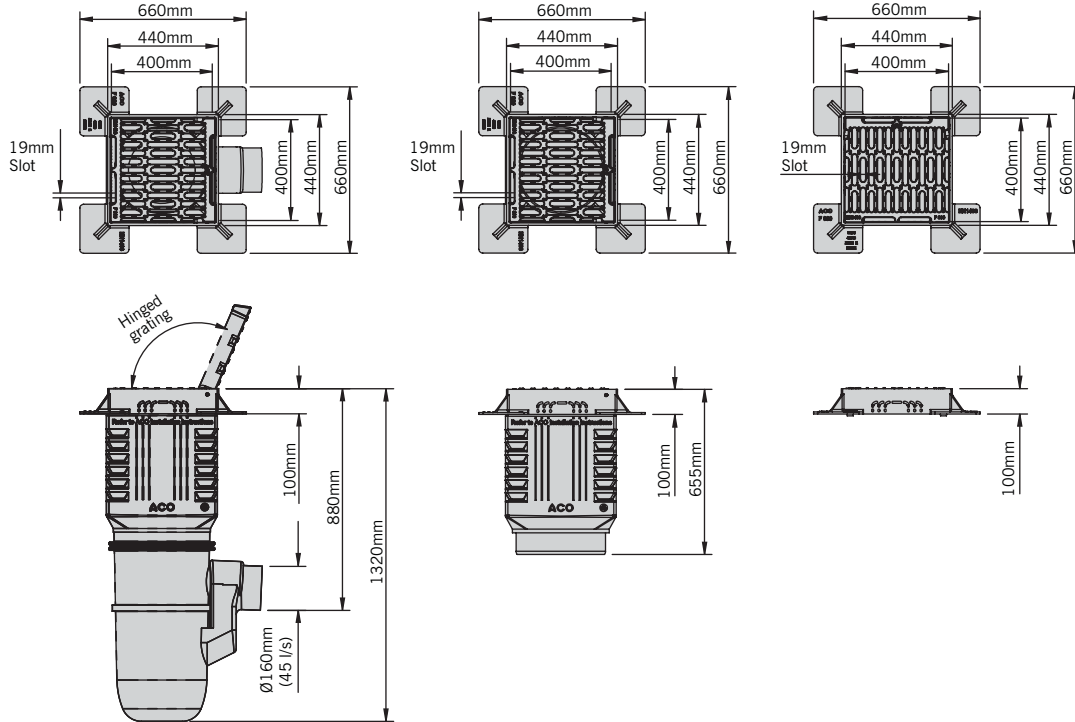
Product code: 33407

Product code: 44355

* Clear opening size
†† Over frame size

ACO Universal Gully units - F 900 assemblies

Product code	Description	Length (m)	Width overall (m)	Depth overall (mm)	Invert (mm)	Slot width (mm)	Invert type	Weight (kg)
33601	Gully assembly and bucket 601F	440	440	1315	870	19	1	78.8
33602	Gully assembly no bucket 602F	440	440	1315	870	19	1	77.4
33607	Gully top assembly only 607F	440	440	655	-	19	1	73.1
33604	Grating and frame 604F	400*	660††	100	-	19	1	69.5



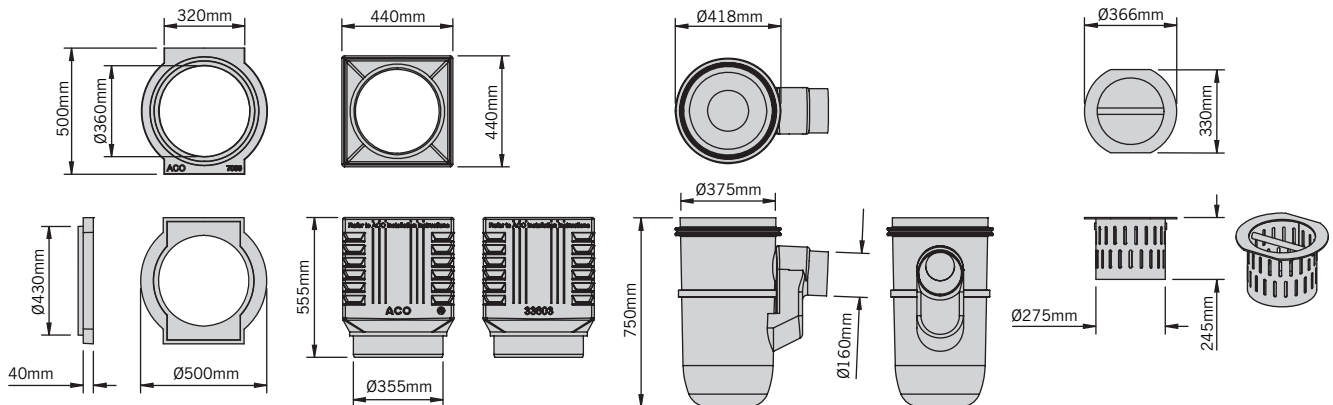
Product code: 33601 and 33602

Product code: 33607

Product code: 33604

ACO Universal Gully components

Product code	Description	Length (m)	Width overall (m)	Depth overall (mm)	Invert (mm)	Invert type	Weight (kg)
7060	Gully connector 615	500	Ø500	40	-	1	7.0
33603	Gully intermediate unit 603	440	440	555	-	1	5.1
33605	Gully base unit 605	-	Ø375	750	310	1	4.3
33606	Bucket polyethylene 606	-	Ø275	245	-	1	1.4



Product code: 7060

Product code: 33603

Product code: 33605

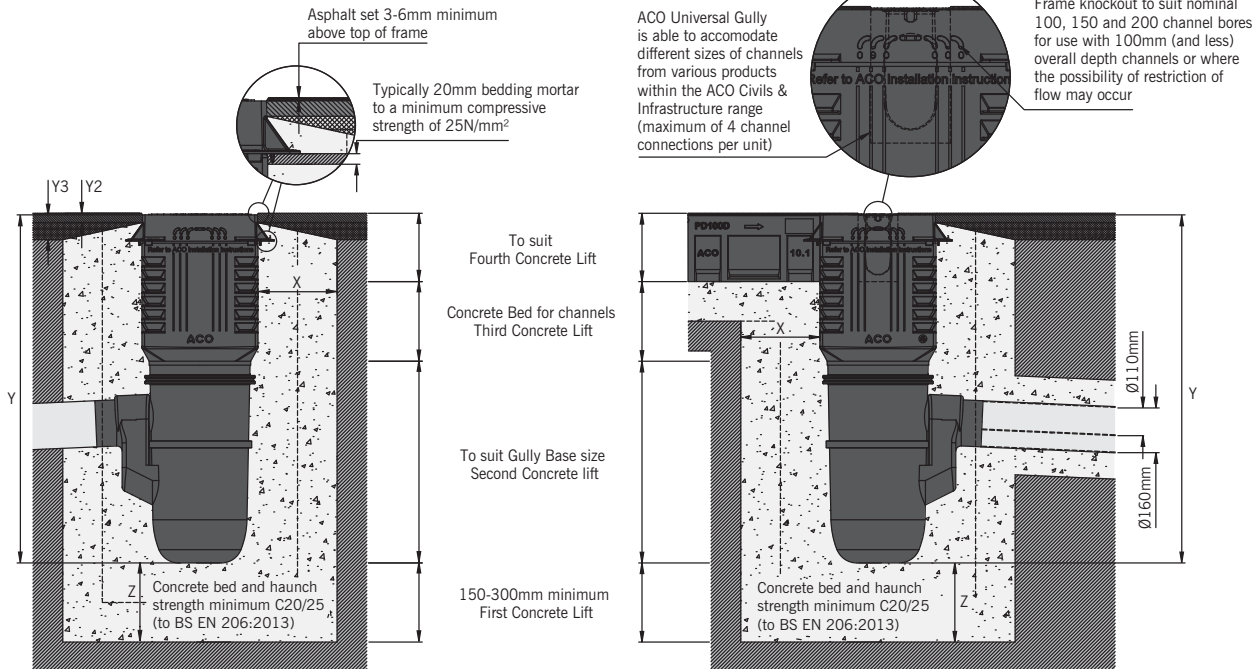
Product code: 33606

* Clear opening size
 †† Over frame size

Installation detail

GRASS OR ASPHALT PAVEMENT

With Channel and Outlet Connection



1.0 Load Class

Installation recommendations shown are ACO minimum recommendations for BS EN 1433:2002 load class requirements.

2.0 Ground Conditions

The long term performance of a gully installation to sustain vertical and lateral loads depends upon A) ground conditions B) stability of the adjacent pavement and C) a durable concrete bed and surround. The recommended installation detail may require the minimum dimensions to be revised to achieve site specific load class requirements (referred to in 1.0 above).

3.0 Location and Connection with Sub Surface Drainage Guidance

The sump or gully should be positioned at the lowest channel invert point. With the base level, connect pipework, locate gully top if required and concrete the complete assembly in position. Any channels knockouts should remain until channel connection. The channels should then be selected (in numerical order from deepest to shallowest where sloping invert channels are specified) starting from the outlet, to make up the length of channel required and lay out. Install channels in order from the outlet with the arrow on each unit pointing to the outlet (flow direction) and ensure the channels butt together so that the male and female details locate positively.

Note: For any channel system, sump/gully unit end plates will need to be cut to match the invert depth of adjacent channel units.

4.0 Cutting and Jointing

Cut out knockouts on gully frame and profile of the channel from the inside of the unit to match the desired adjacent unit. Use an appropriate sealant to create watertight joint between intermediate unit and desired channel face.

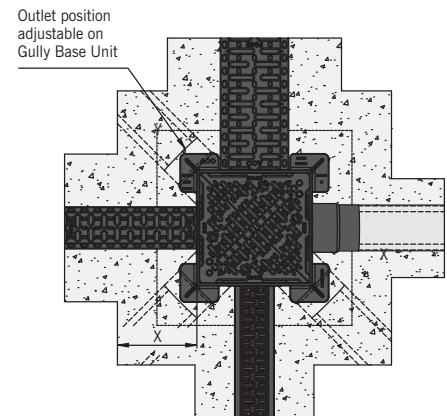
5.0 Isolation Joints

The gully must be isolated from the surrounding environment. An isolation joint must be positioned up to 1500mm from the gully wall. Any dowel bars must be located no nearer than 150mm from the gully wall. Other isolation joints in surrounding slab must be continued through the gully. Additional crack control may be required to comply with specifier requirements.

6.0 Temporary Installation

A gully installation is not complete until the final surfacing is laid. In any temporary condition, i.e. with the gully frame projecting above adjacent ground, site traffic should not cross gullies. Loose boards, stone fill or cover plates will not protect the gully frame. A temporary gully crossing should be formed by raising the ground level locally, to 3 - 6mm above top of frame, either side of a gully for a distance of 750 to 1000mm, to form ramps.

Note that the gully load class should be adequate to carry the site traffic.



7.0 Concrete Surround and Reinforcement

Ensure that the gully assembly does not float while pouring the concrete.

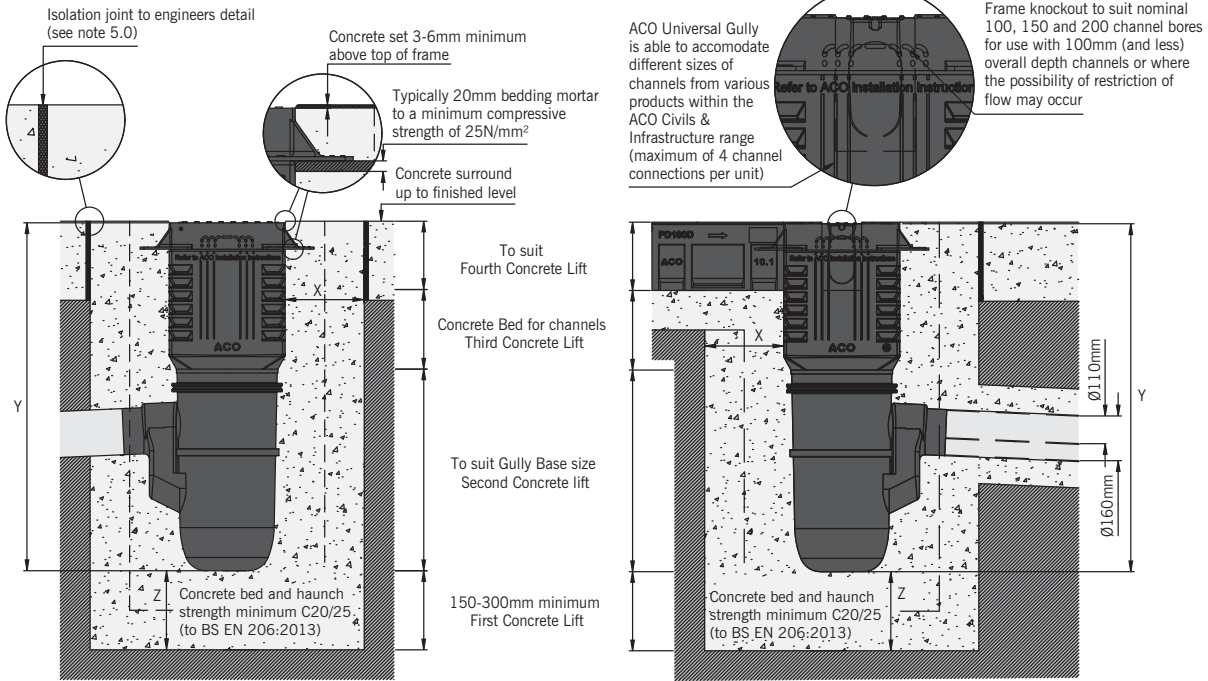
8.0 Grate Locking System

Gratings should be securely fixed to the gully, where required, using an appropriate grate lock system (where available).

9.0 Channel Protection

Avoid contact between compaction equipment and top of ACO gully frame. The installer must ensure that the finished surface level lies above the top of the frame (by at least 3-6mm). Covering or protecting the frame, before concreting the haunch, removes the time and cost associated with cleaning the gully and frame of cement material and embedded stones.

With Channel and Outlet Connection



10.0 Watertight Installation to BS EN 1433:2002

Where ACO Universal Gullies are to be installed with watertight joints, the adjoining channel units must be checked for cleanliness prior to any sealant application. ACO Universal Gullies are tested to confirm compliance with the watertightness requirements of BS EN 1433 when filled with water to the top of the gully frame. Installation must be in accordance with ACO's recommendations and the recommendations of the sealant manufacturer. It is envisaged that the channel joints would not be subject to movement, but any movement of the joint might compromise the watertightness.

Note: Galvanised steel and iron products have good corrosion resistance to concrete and mortar products but may experience corrosion if high chloride and/or sulphate content is present. Use only good quality concrete and consider using corrosion inhibitors where necessary. The use of protective coatings, such as paint, can minimise the risk of corrosion.

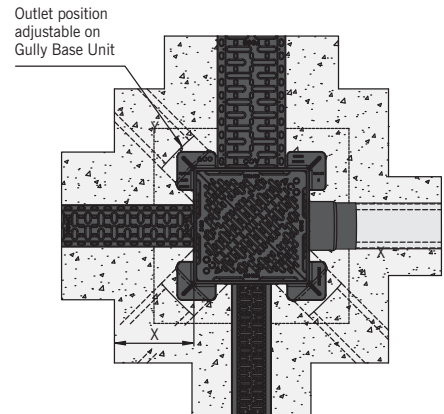
NBS Specification

ACO Universal Gully should be specified in section Q10:180. Assistance in completing this clause can be found in ACO Technologies product entries in NBS Plus, or a model specification can be downloaded from www.aco.co.uk. For further assistance, contact the ACO Water Management Design Services Team.

Best practice and workmanship

ACO can give guidance with respect to the most suitable methods of installation for each of the products in the ACO Universal Gully range. ACO Universal Gully should be installed using levels of workmanship that accord with the National Code of Practice (UK: BS8000: Part 14: 1989) and in keeping with EN 1433 (Drainage channels for vehicular and pedestrian areas).

Detailed installation statements and methodologies will vary for all sites as each will have different aspects deserving particular consideration, consequently the relevant approvals should be sought from the consulting engineer and/or the installer.



For further information please contact our Design Services Team (technical@aco.co.uk) or the ACO website www.aco.co.uk.

11.0 Minimum Dimensions of Concrete Surround

Load Class		A 15	B 125	C 250	D 400*	E 600	F 900
Minimum Dimensions (mm)	x	150	150	150	300	300	300
	y	Full channel height (less Y2 where necessary)					
	z	150	150	150	300	300	300
	Y2	35	35	35	35	35	35
Asphalt pavement only	Y3	100	60	60	60	60	60

* e.g. parking areas for all types of road vehicle.

Notes

