

ACO DRAIN Technical Handbook and Product Catalog



Specialty Products

Products designed for particular drainage applications

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ACO Drain offer a comprehensive 128 page catalog covering everything you need to know about about trench drainage and the products and services available.

To ease electronic transmission of data the catalog has been divided into sections - for a hard copy or other sections call (800) 543-4764 or go to www.acousa.com.

This PDF relates to this section only

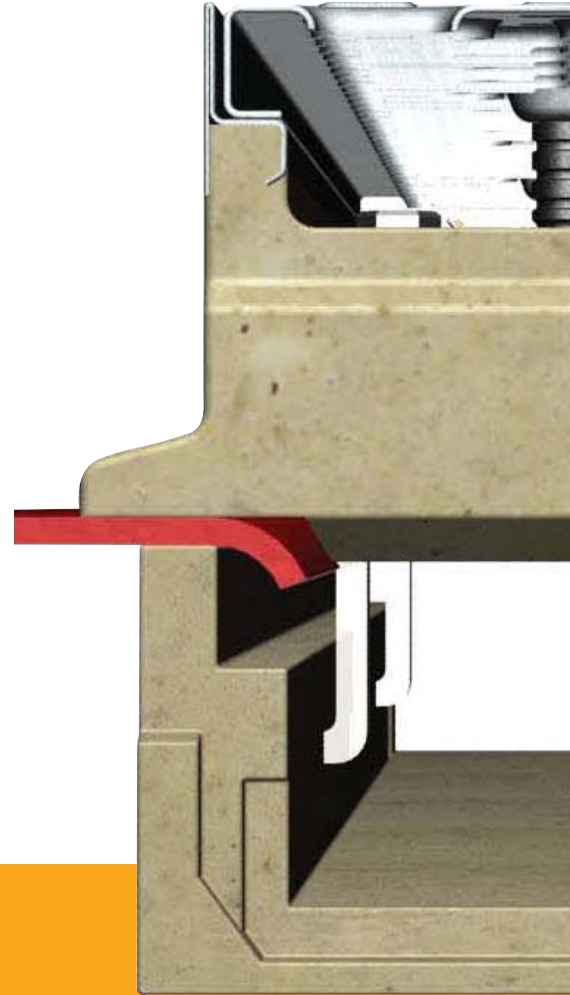
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Typical applications

- *Shopping malls*
- *Pedestrian areas*
- *Sidewalks*
- *High profile projects*
- *Drains for membrane connection*
- *Pool areas*



Brickslot Membrane Drain MiniKlassik Cross Sidewalk Drain

To complement its core range of general purpose, shallow and Vinyl ester trench drains, ACO has developed a specialty range of drainage products for particular applications and problems.

Typical problems to be solved include discreet trench drain to complement brick paving, connection of waterproof membranes to a trench drain, small trench drains, and dealing with rainwater down spouts and outlets into curbs.

Specialty products are made to order.





Specialty Products

Products designed for particular drainage applications



Brickslot

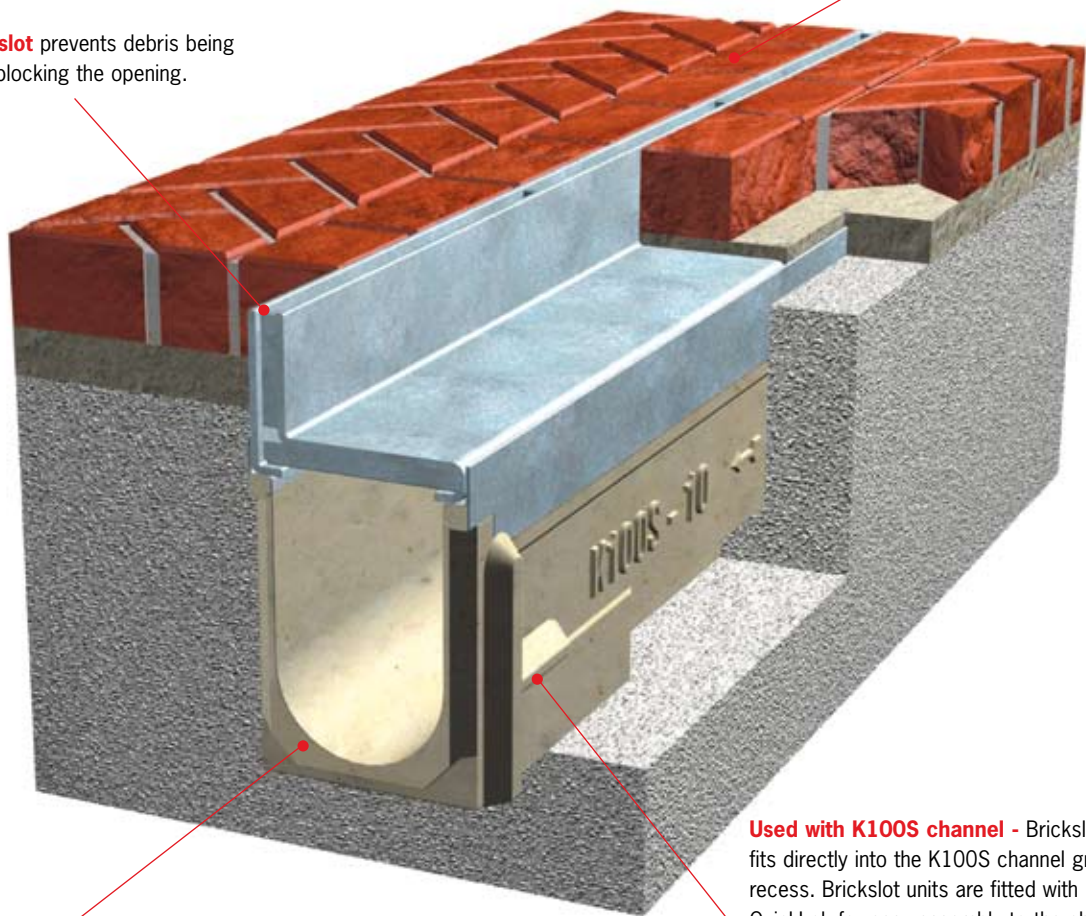
Brickslot

Brickslot is a discreet, drainage solution for use with brick or stone pavers. The $\frac{7}{16}$ " slot blends in with the paving joints giving an aesthetic solution.



Brick pavers fit directly against the slot. For light duty pedestrian applications, pavers can be set on sand; for heavier duty projects, pavers should be set on concrete. Maximum paver depth $2\frac{1}{2}$ " (63.5mm) to allow for $\frac{1}{4}$ " (6mm) bedding material.

$\frac{7}{16}$ " flared slot prevents debris being trapped and blocking the opening.



End caps and accessories are available from the K100S range. See page 32 for details.

Used with K100S channel - Brickslot fits directly into the K100S channel grate recess. Brickslot units are fitted with QuickLok for easy assembly to the channel unit. Half meter sections are available. Half meter access units provide access to the channel or catch basin for maintenance. See page 32 for details.

Brickslot Parts list

Description	Part No	Overall Depth		Weight lbs
		inches	mm	
Brickslot (galvanized steel) - 39.37" (1m)	98999	3.50	89	18.4
Brickslot (galvanized steel) - 19.69" (0.5m)	98988	3.50	89	9.2
Brickslot access unit - 19.69" (0.5m)	96877	3.50	89	16.9
QuickLok/PowerLok grate removal tool ⁴	01318	-	-	0.3

Notes:

1. For K100S channels and K900 catch basin information see page 32
2. Add 2.7" (69mm) to channel invert for Brickslot invert
3. Brickslot can also be used with H80K and H100K - see page 83
4. Only access cover can be removed once Brickslot has been installed



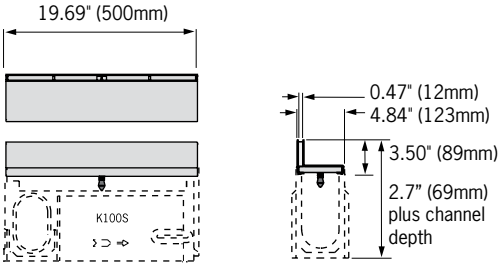
Unique angled top allows slot to be positioned against a wall or other structure.



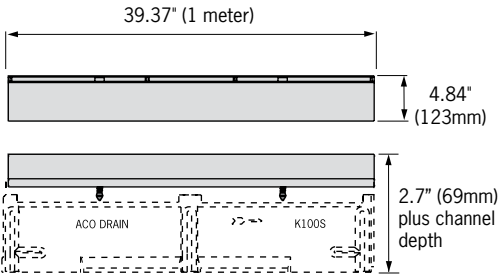
Brickslot access unit



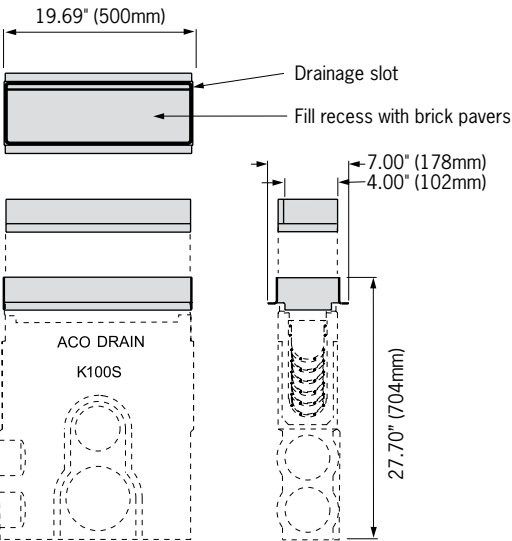
Half meter unit



One meter unit



Access unit



Access cover can be used on top of K900 catch basin, or channel, to provide access to the system for maintenance. Debris can be flushed towards catch basin using a high pressure hose, where it collects in trash bucket and can be removed.

Membrane Drain

Specifically for use in suspended slab where any liquid permeating through the pavement is collected and directed into the trench drain.

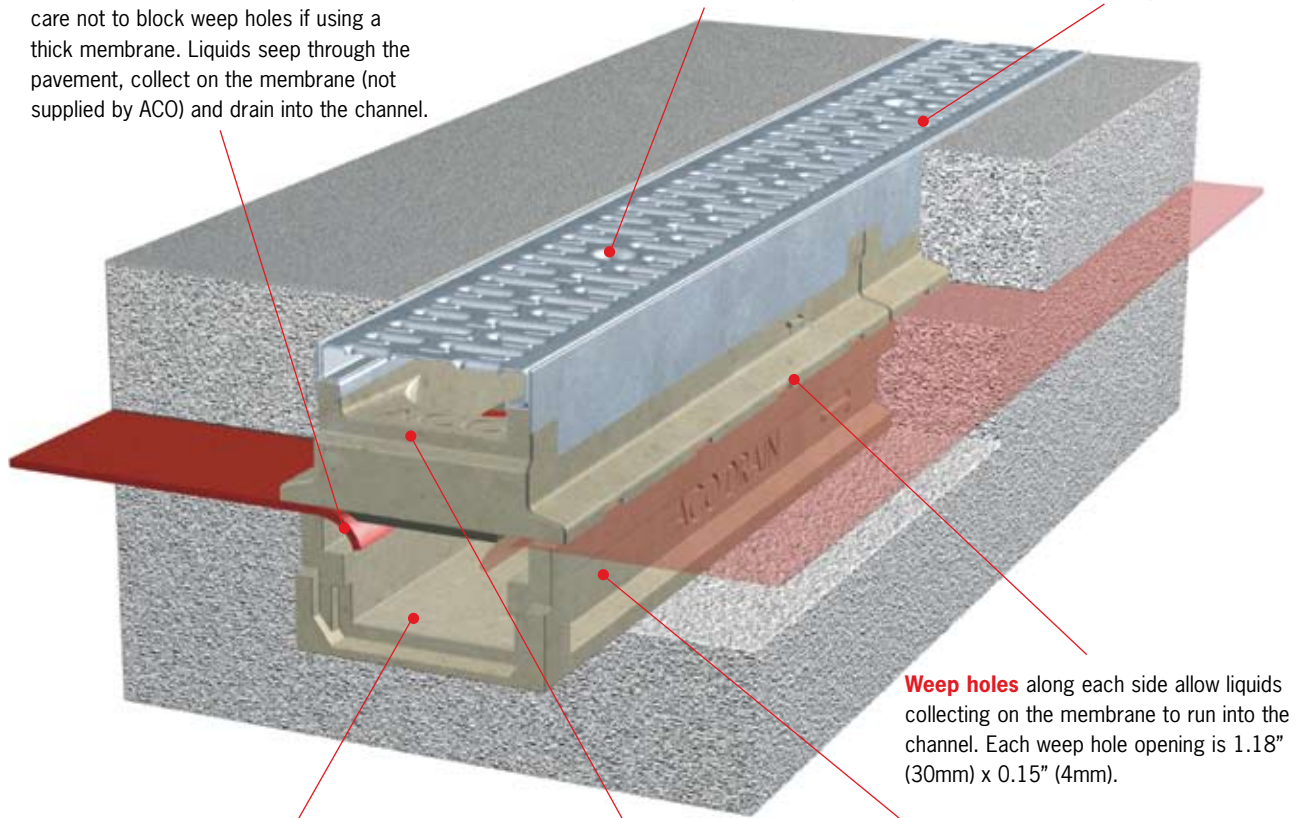
Loading is determined by grate, up to Load Class C.

Membrane is clamped between channel and subframe. Maximum membrane of 1/2" (12.7mm) can be accommodated - take care not to block weep holes if using a thick membrane. Liquids seep through the pavement, collect on the membrane (not supplied by ACO) and drain into the channel.



Clamping device - an inverted 'U' shaped locking bar is fitted to the H80/H100 channel. The modified QuickLok locking bar is fitted to the Membrane drain subframe. Two bolts allow connection between the two bars and hold the membrane tight.

Grates sit directly into the membrane drain subframe and lock into position with a removable QuickLok locking bar mechanism.



Weep holes along each side allow liquids collecting on the membrane to run into the channel. Each weep hole opening is 1.18" (30mm) x 0.15" (4mm).

Membrane end cap - use top part of K100S closing cap to close end of subframe. (Part # 96825).

See page 32 for details.

End caps and accessories are available from the H80/H100 range.
See page 83 for details.

Used with H80/H100 channel - Membrane subframe fits directly on the H80/H100 channels.
See page 83 for details.

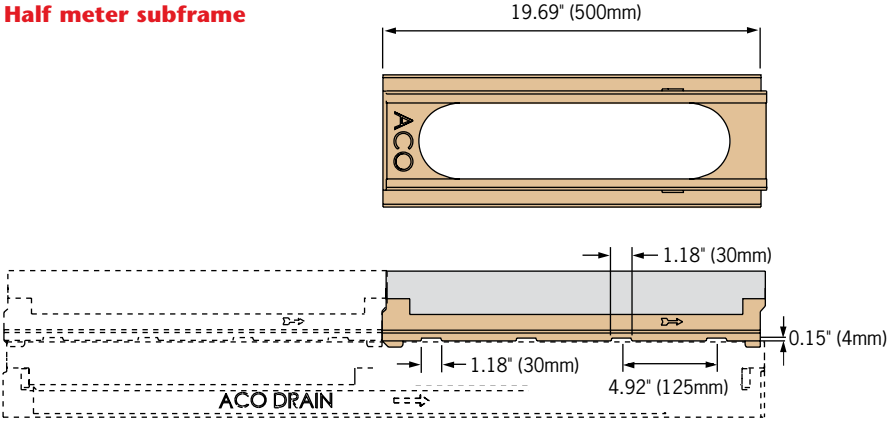
Membrane Parts list

Description	Part No	Overall Depth		Weight lbs
		inches	mm	
Membrane subframe - galvanized rail	96903	3.62	92	9.7
Membrane subframe - stainless rail	96918	3.62	92	9.7
Clamping device galvanized	96905	-	-	0.9
Clamping device stainless	96913	-	-	0.9

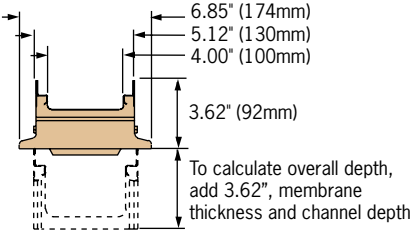
Notes:

1. For H80/H100 channel information see page 83
2. Can be used with K100S, if appropriate slab depth - see page 32

Half meter subframe



End view



Clamping device

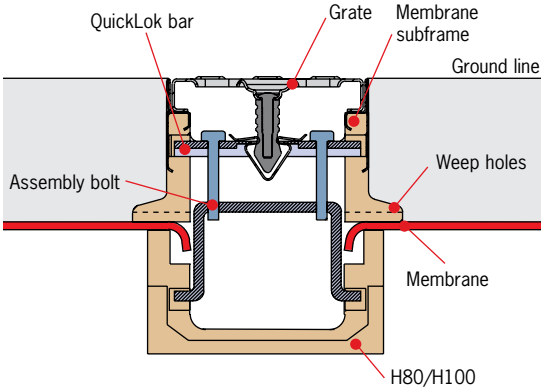
Two 5/16 -18 x 2" bolts

Removable QuickLok locking bar

Inverted U locking bar fits in channel and locks Membrane unit and channel together



Section through Membrane Drain System



Membrane collects liquids that seep through surface materials

MiniKlassik



A 2" internal width system for high profile, aesthetic applications where a barrier is required to separate wet and dry areas.

DIN 19580 does not cover grates for 2" (50mm) internal width trench drains, but grates have been load tested in accordance with DIN 19580 guidelines.

Loading is determined by grate up to Load Class C.

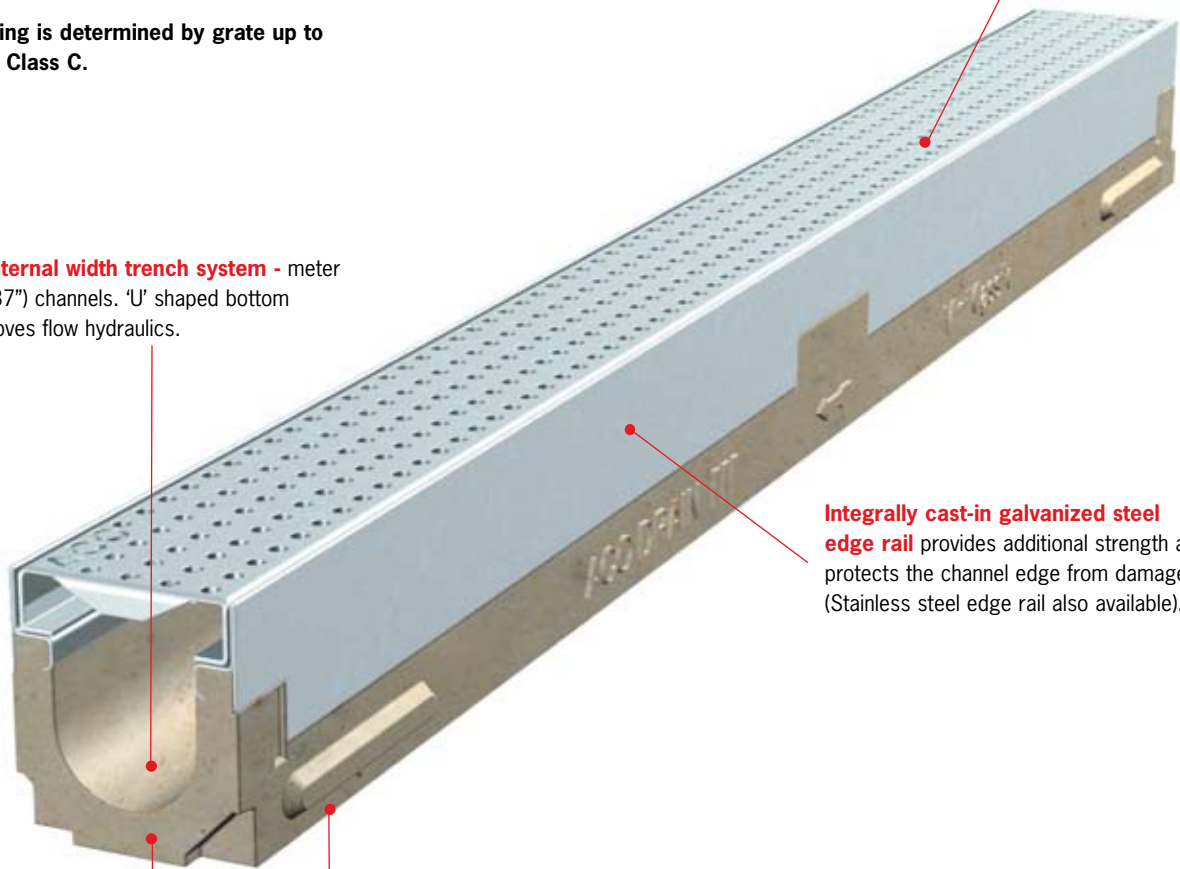
Choice of grates in various materials and styles (including ADA compliant) for applications from Load Class A to Load Class C.

2" internal width trench system - meter (39.37") channels. 'U' shaped bottom improves flow hydraulics.

Integrally cast-in galvanized steel edge rail provides additional strength and protects the channel edge from damage. (Stainless steel edge rail also available).

1.5" Sch. 40 drill-out allows vertical evacuation at male end of channel at any point along the run.

Interconnecting end profiles allow easy and effective joining of channels. Appropriate sealant can be used to create a sealed joint.



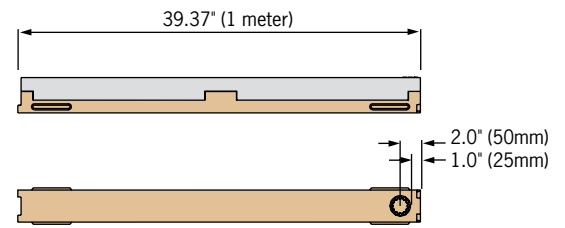
MiniKlassik Parts list

Description	Part No	Invert Depth		Weight lbs
		inches	mm	
MiniKlassik neutral channel galvanized rail	04071	2.9	74	18.0
MiniKlassik neutral channel stainless rail	06750	2.9	74	18.0
Galvanized steel closing cap	95395	-	-	0.3
Stainless steel closing cap	95403	-	-	0.3

Notes:

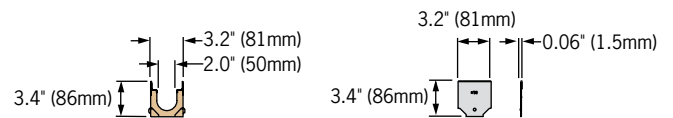
1. Preformed 1.5" dia. drill-out outlet cast on underside of every channel
2. MiniKlassik does not fit with any ACO catch basin - discharge through vertical outlet only
3. 1.5" vertical outlet provides a flow rate of 12.7GPM - 0.03CFS

One meter channel



End view

Closing cap



PERFORATED STEEL

DIN 19580 Class A - 3,500lbs - 91psi

Pedestrian



Description	Part No.	Length ins (meters)	Weight lbs	Slot size (ins)	Intake area sq. ins.	Locking Type
Galvanized steel	94699	39.37" (1.0m)	4.0	0.23 dia.	14.5	N/A
Stainless steel*	95165	39.37" (1.0m)	4.0	0.23 dia.	14.5	N/A

* Grade 304 stainless steel



SLOTTED STEEL

DIN 19580 Class A - 3,500lbs - 91psi

Pedestrian



Description	Part No.	Length ins (meters)	Weight lbs	Slot size (ins)	Intake area sq. ins.	Locking Type
Galvanized steel	95537	39.37" (1.0m)	4.0	1.35 x 0.38	18.7	N/A
Stainless steel*	95545	39.37" (1.0m)	4.0	1.35 x 0.38	18.7	N/A

* Grade 304 stainless steel



MOSAIC PLASTIC

DIN 19580 Class A - 3,500lbs - 91psi

Pedestrian



Description	Part No.	Length ins (meters)	Weight lbs	Slot size (ins)	Intake area sq. ins.	Locking Type
Plastic*	96788	19.69" (0.5m)	1.2	1.0 x 0.2 avg.	11.45	N/A

* High Density Polyethylene - HDPE



ADA IRON

DIN 19580 Class C - 56,000lbs - 1,523psi Commercial vehicle



Description	Part No.	Length ins (meters)	Weight lbs	Slot size (ins)	Intake area sq. ins.	Locking Type
Ductile iron*	95553	19.69" (0.5m)	7.3	0.29 x 1.5	17.4	N/A

* Ductile iron to ASTM A 536-84 - grade 65-45-12



Cross Sidewalk Drain

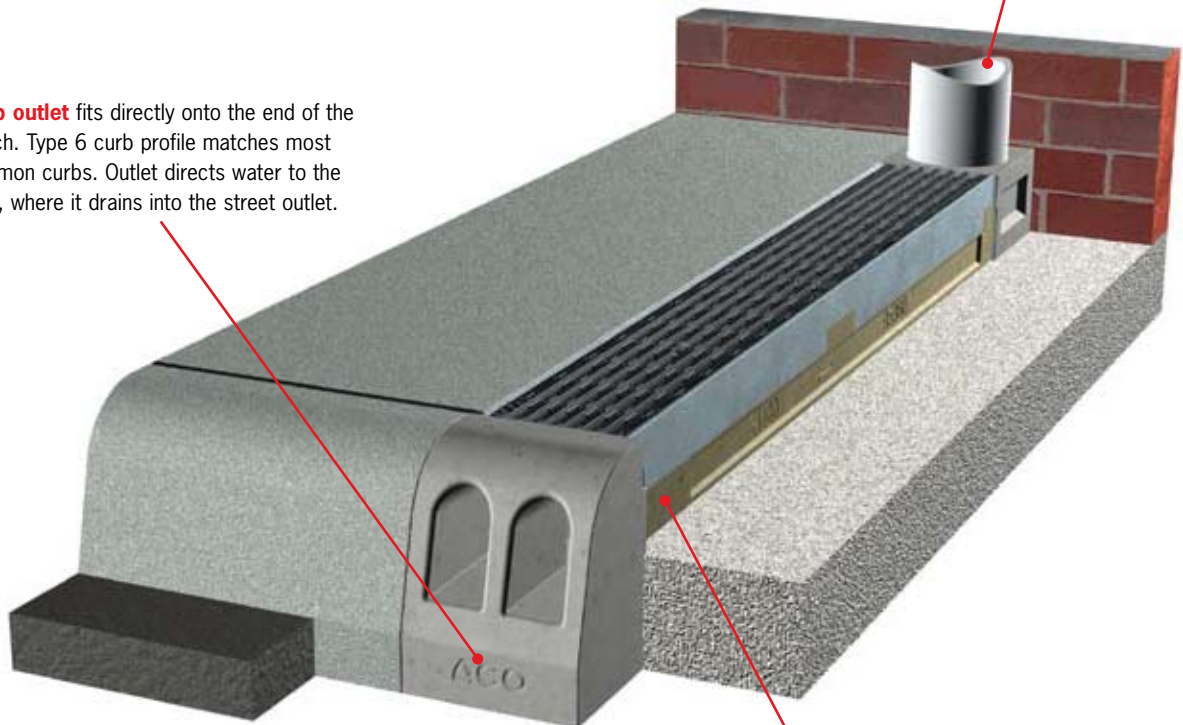


Cross sidewalk drains (CSD) are designed to carry discharge from rainwater down spouts safely and discreetly across the sidewalk to the curb.

Loading is determined by the grate, up to Class E.

Down spout inlet connects round or rectangular down spouts from gutters, etc. Drains directly into the trench drain to avoid water pouring across the sidewalk which may create a slip hazard.

Curb outlet fits directly onto the end of the trench. Type 6 curb profile matches most common curbs. Outlet directs water to the road, where it drains into the street outlet.



Used with H100K channels - CSD accessories fit with H100K channels. See page 83 for details.

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Roll curb outlet - used in roads with roll type (mountable) curbs. Ideal for sub-divisions where roads are built prior to houses. Removable S100K PowerDrain grates to allow cleaning of outlet/trench. Designed to fit with H100SK or with a Schedule 40 3" pipe inlet cast into rear. Protective 'armor' at front prevents damage from road sweepers and snow plows.



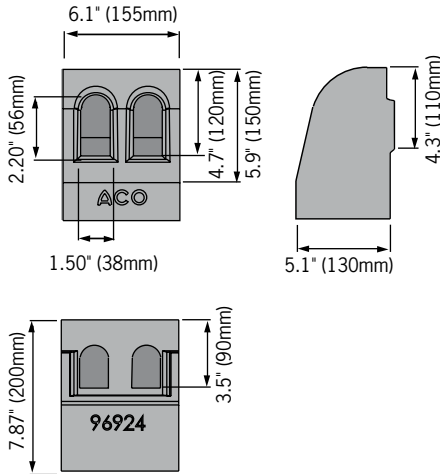
CSD Parts list

Description	Part No	Overall Depth		Weight lbs
		inches	mm	
Curb outlet - Type 6	96924	7.87	200	12.7
Down spout inlet	96932	3.95	100	6.0

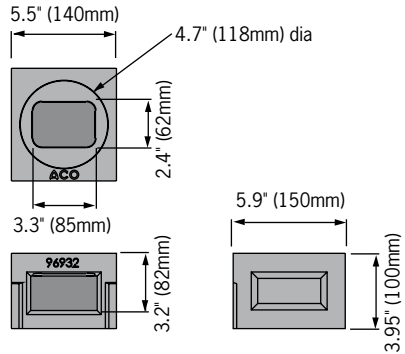
Notes:
For H100K channel information see page 83



Curb outlet



Down spout inlet



Easy discharge from down spout to curb

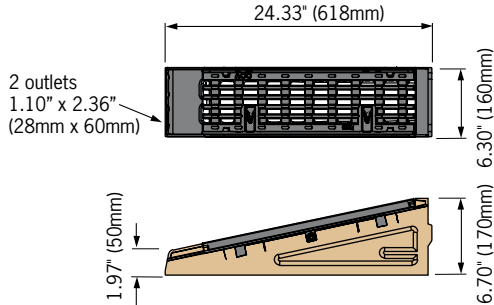
Roll Curb Outlet Parts list

Description	Part No	Overall Depth		Weight lbs
		inches	mm	
Roll curb outlet - slotted grate	96928	6.70	170	51.0
Roll curb outlet - ADA grate	96926	6.70	170	52.3
Roll curb outlet with 3" pipe inlet - slotted grate	96931	6.70	170	52.0
Roll curb outlet with 3" pipe inlet - ADA grate	96933	6.70	170	53.3

Notes:
1. For H100SK channel information see page 83
2. For grate information see page 44



Roll curb outlet - to fit H100SK



Roll curb outlet - with pipe inlet

