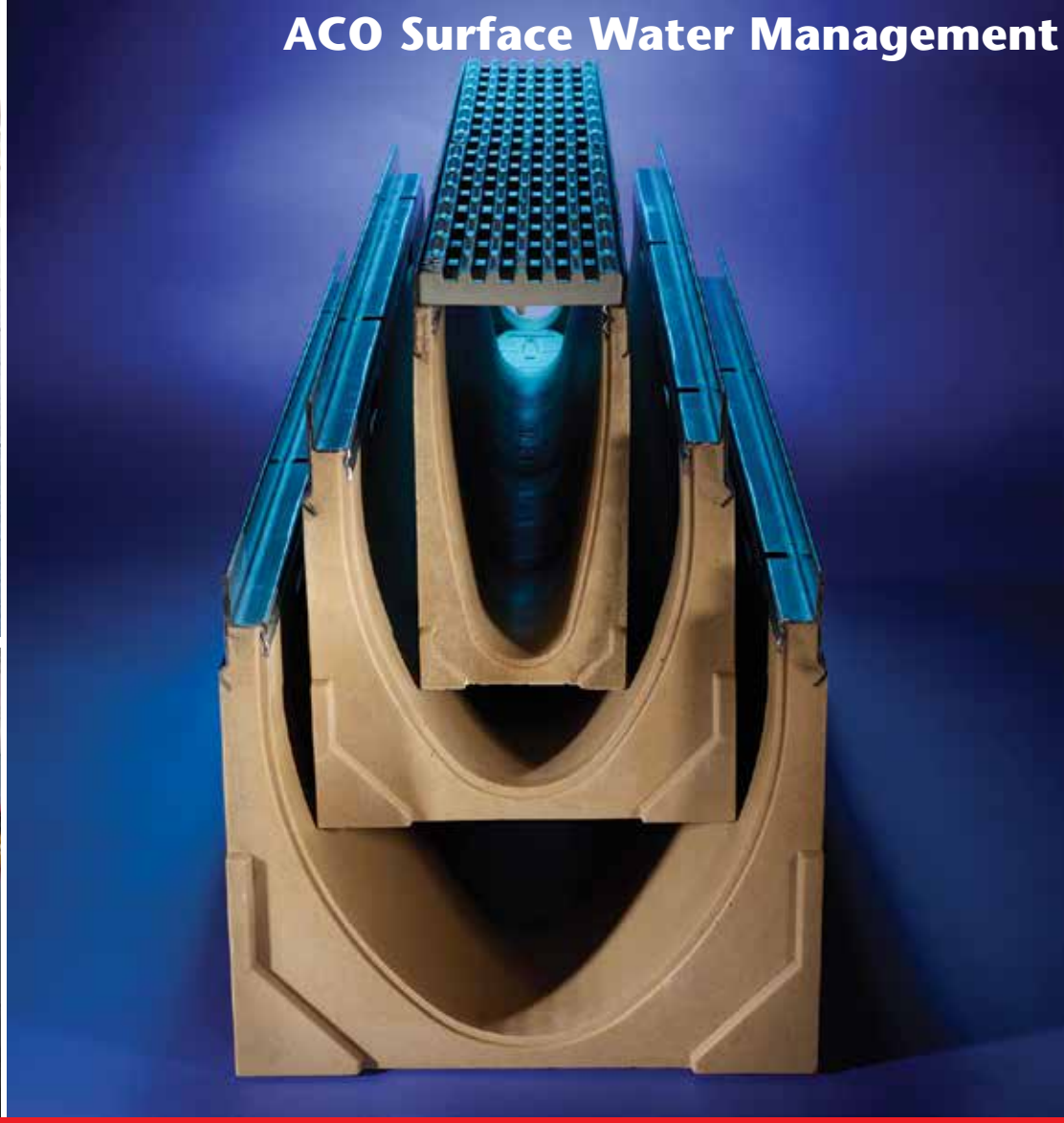


ACO DRAIN®

KlassikDrain Leaflet

Introduction to the general purpose KlassikDrain System

K100 – 100mm width, steel edge channel

K200 – 200mm width, steel edge channel

K300 – 300mm width, steel edge channel

ACO DRAIN®

ACO Drain® is the leading modular trench drain system and is ideal for commercial applications ranging from petrol stations to airports.

ACO Drain® systems comprise Polycrete® *Channels, factory manufactured modular units made from corrosion resistant polymer concrete. Channels are to be used with grates from a variety of materials for all loading applications. ACO Drain® systems are available in 50mm, 100mm, 200mm and 300mm internal widths, and most systems have a built–in slope for up to 40 continuous metres.**

The ACO Drain® brand is segmented into different product ranges, dependent on use.

1. **Standard Products**
   - **KlassikDrain**
   - **PowerDrain**
   - **SlabDrain**
2. **Specialty Products**
   - **Brickslot**
   - **MiniKlassik**
   - **Grated Pits**

KlassikDrain

KlassikDrain is available in 100mm, 200mm and 300mm widths and is a general purpose trench drain comprising modular Polycrete® *Channels. Each interconnecting unit is manufactured complete with integrally cast galvanised steel edge rails (K100/K200/K300) or for enhanced corrosion resistance and aesthetics, stainless steel edge rails (KS100/KS200/KS300).**

A variety of grates is available in different materials and styles up to load class D (AS 3996). This is equivalent to approximately 8 tonne wheel load. There is also a specialist range of grates marketed under the trademark, Heelsafe® *Anti-Slip*. These are pedestrian friendly grates with certified slip ratings to AS 4586.

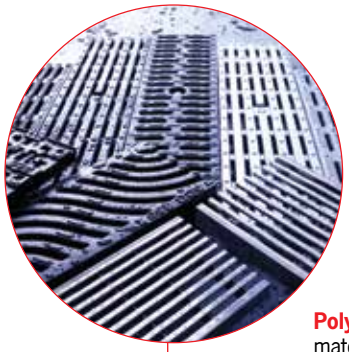
For quick fitting and removal during installation and maintenance, most grates are locked down with the patented, barless and boltless mechanism, DrainLok.

*** Polycrete® refers to ACO Products made from polymer concrete**

Typical applications

- ***Parking lots & garages***
- ***Shopping centres***
- ***Pedestrian areas***
- ***Light industrial areas***
- ***Commercial areas***
- ***Internal applications***

Product overview – K100 / K200 / K300



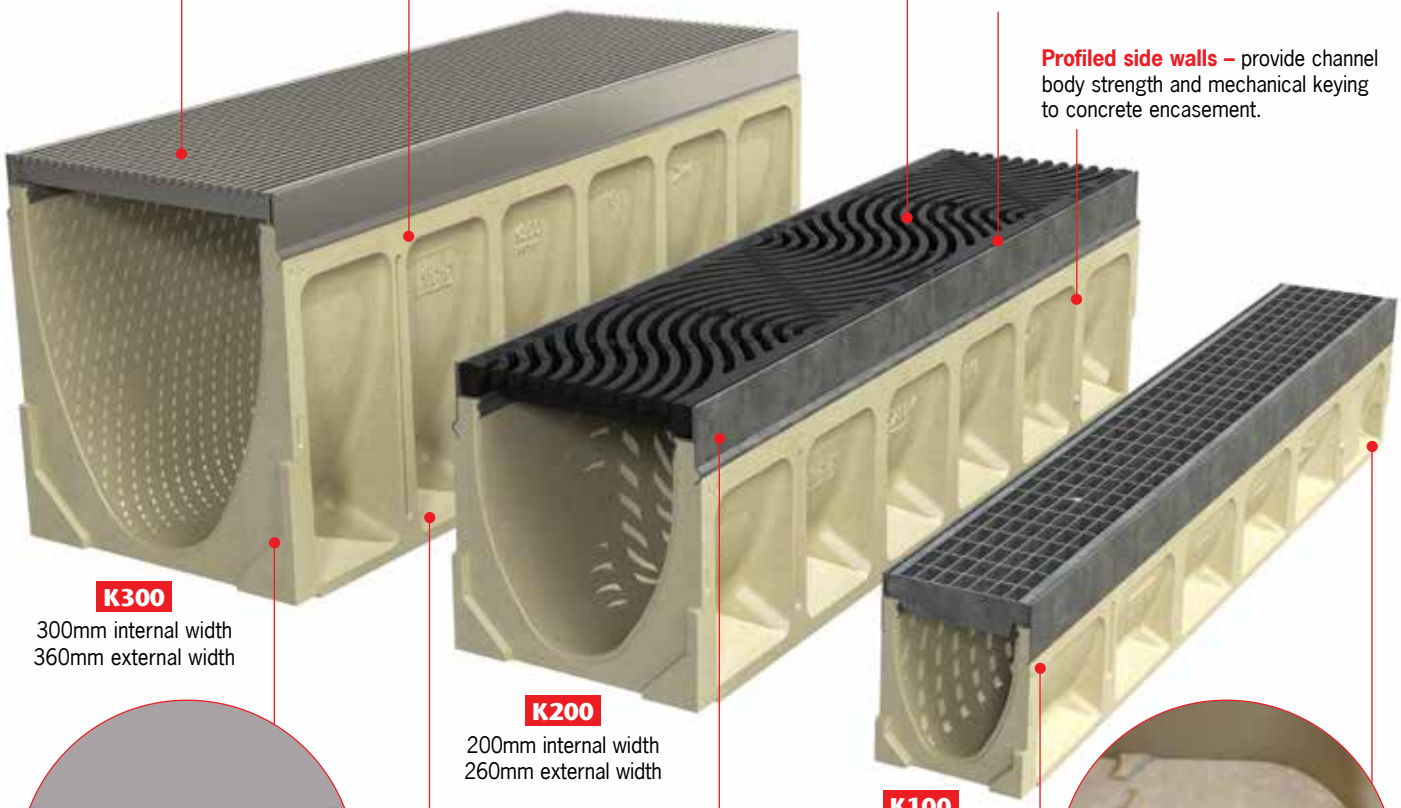
Wide choice of grates – in a variety of materials and designs including **Heelsafe®** *Anti-Slip* grates for applications from load class A to load class D (up to approx. 8 tonne wheel load) AS 3996.

DrainLok – patented, barless and boltless locking system provides quick fitting and removal of grates. Helps reduce installation time, maintenance time and cost. Provides four locking points per metre.

Polymer concrete – a durable yet lightweight material made from polyester resin binder reinforced by mineral aggregates and fillers.

'Anti–shunt' lugs – lugs in some grates fit into recesses on the edge rail to prevent longitudinal movement.

Profiled side walls – provide channel body strength and mechanical keying to concrete encasement.



K300
300mm internal width
360mm external width

K200
200mm internal width
260mm external width

K100
100mm internal width
130mm external width

Interconnecting end profiles allow easy and effective joining of channels.
SF Sealant Groove – a groove is cast into both ends of every channel. The combined groove allows for a bead of appropriate flexible sealant to be inserted at joints, if required.

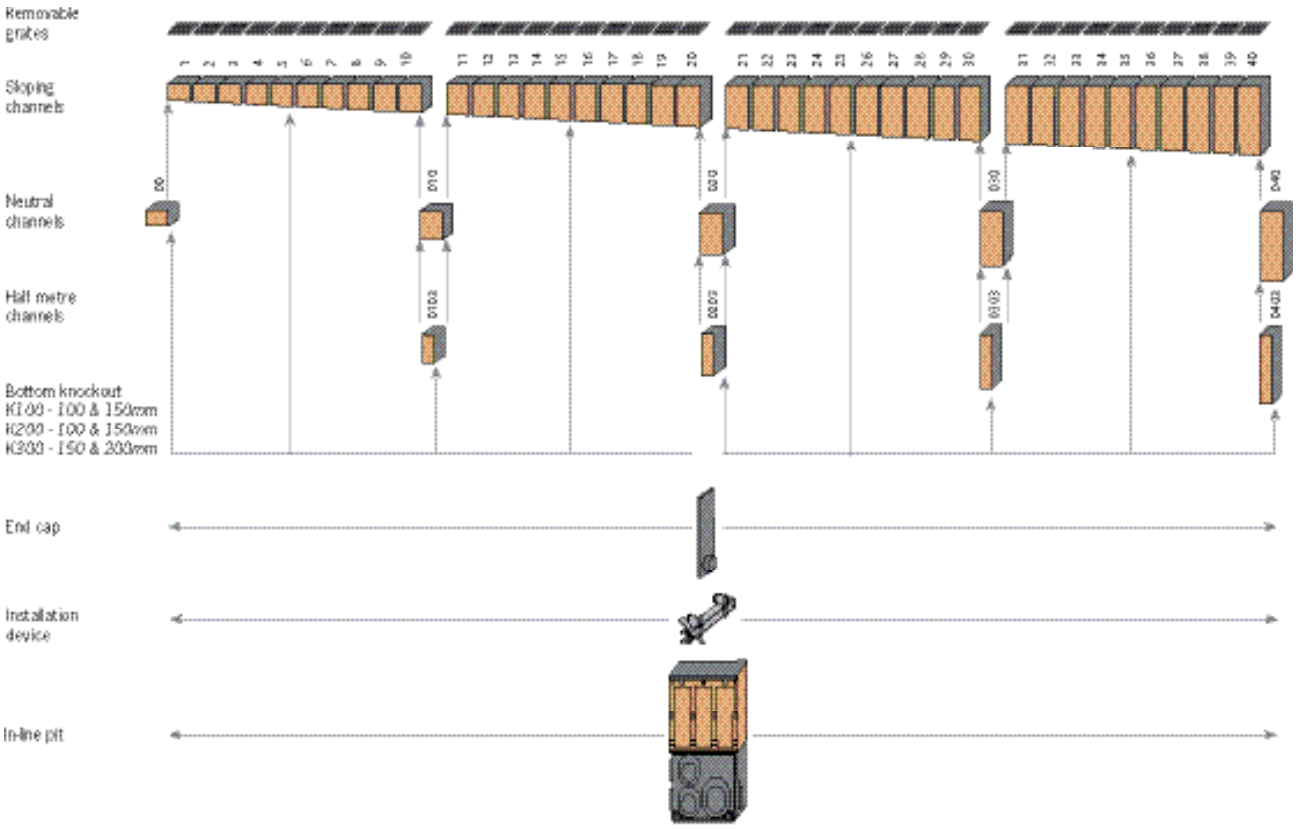
Integrally cast-in galvanised steel edge rail provides additional strength and protects channel body from damage. (Stainless steel grade 304 edge rail also available).

Knock-outs are included on every fifth channel unit to allow vertical outlet connection to the pipework.

Sloped (0.5%) channel units – metre long units provide 40 metres continuous slope. This equates to 5mm fall per metre. Five neutral channels extend run lengths. Four half-metre units and accessories also available.

Channel identification and system numbering – in addition to channel numbering on sidewalls and (invert) base of channel, each end of the channel indicates the number of the channel that will connect to it.

Typical system layout – K100 / K200 / K300

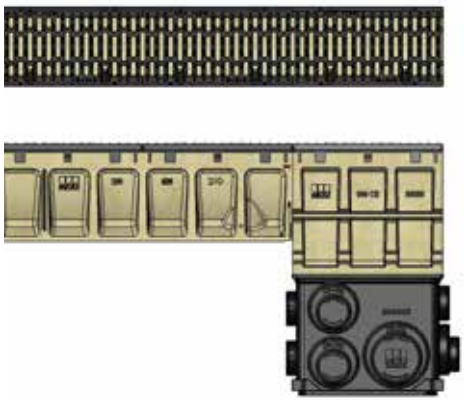


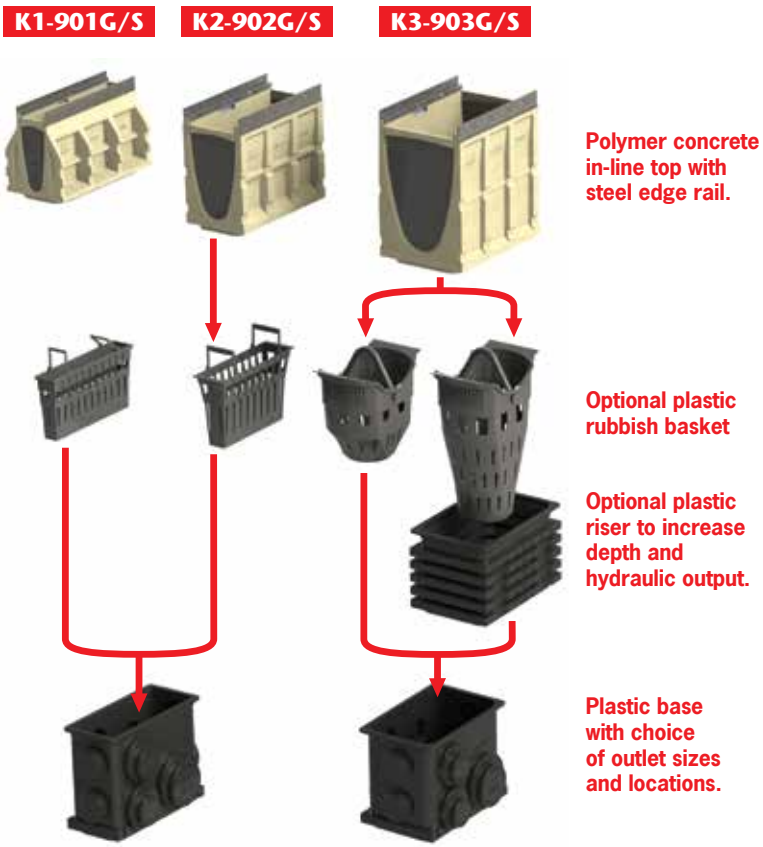
In-line pit options

Polymer concrete in-line pits are most commonly used as the outlet to the underground pipework for a trench run. They provide the highest hydraulic output and allow easy access to the pipe system for maintenance.

Type 900 in-line pits are the same width as the trench run.

The polymer concrete in-line top enables the same grate to be used as the trench run for a seamless finish.





Both K1-901 and K2-902 in-line pits use the same base and provides access for pipe maintenance.

Note: "G" indicates galvanised steel edge rail
"S" indicates stainless steel edge rail

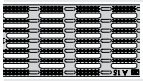
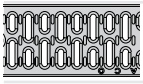
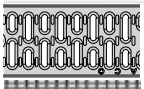
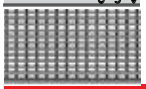
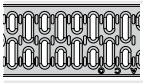
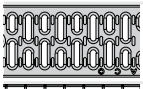
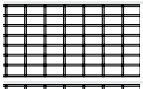
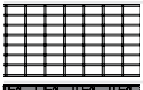
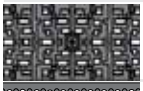
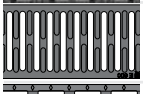
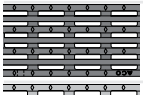
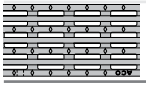
Parts table

	K100 – 100mm internal width				K200 – 200mm internal width				K300 – 300mm internal width			
	Part No.		Invert[2]	Weight	Part No.		Invert[2]	Weight	Part No.		Invert[2]	Weight
	Galv	S/S	mm	kg	Galv	S/S	mm	kg	Galv	S/S	mm	kg
00 Neutral channel (1m)[1]	**144041**	**144441**	100	12.7	**145041**	**145441**	200	37.9	**146041**	**146441**	300	60.1
1 Sloped channel (1m)	**144001**	**144401**	105	12.7	**145001**	**145401**	205	37.9	**146001**	**146401**	305	60.1
2 Sloped channel (1m)	**144002**	**144402**	110	13.1	**145002**	**145402**	210	38.4	**146002**	**146402**	310	60.7
3 Sloped channel (1m)	**144003**	**144403**	115	13.5	**145003**	**145403**	215	38.9	**146003**	**146403**	315	61.2
4 Sloped channel (1m)	**144004**	**144404**	120	13.8	**145004**	**145404**	220	39.4	**146004**	**146404**	320	61.8
5 Sloped channel (1m)[1]	**144005**	**144405**	125	14.2	**145005**	**145405**	225	39.9	**146005**	**146405**	325	62.3
6 Sloped channel (1m)	**144006**	**144406**	130	14.6	**145006**	**145406**	230	40.4	**146006**	**146406**	330	62.9
7 Sloped channel (1m)	**144007**	**144407**	135	14.9	**145007**	**145407**	235	40.9	**146007**	**146407**	335	63.4
8 Sloped channel (1m)	**144008**	**144408**	140	15.3	**145008**	**145408**	240	41.4	**146008**	**146408**	340	64.0
9 Sloped channel (1m)	**144009**	**144409**	145	15.6	**145009**	**145409**	245	41.9	**146009**	**146409**	345	64.5
10 Sloped channel (1m)[1]	**144010**	**144410**	150	16.0	**145010**	**145410**	250	42.4	**146010**	**146410**	350	65.0
010 Neutral channel (1m)[1]	**144043**	**144443**	150	16.0	**145043**	**145443**	250	42.4	**146043**	**146443**	350	65.0
0103 Neutral channel (0.5m)[1]	**144044**	**144444**	150	7.7	**145044**	**145444**	250	25.4	**146044**	**146444**	350	34.2
11 Sloped channel (1m)	**144011**	**144411**	155	16.4	**145011**	**145411**	255	42.9	**146011**	**146411**	355	65.6
12 Sloped channel (1m)	**144012**	**144412**	160	16.7	**145012**	**145412**	260	43.4	**146012**	**146412**	360	66.1
13 Sloped channel (1m)	**144013**	**144413**	165	17.1	**145013**	**145413**	265	43.9	**146013**	**146413**	365	66.7
14 Sloped channel (1m)	**144014**	**144414**	170	17.5	**145014**	**145414**	270	44.4	**146014**	**146414**	370	67.2
15 Sloped channel (1m)[1]	**144015**	**144415**	175	17.8	**145015**	**145415**	275	44.9	**146015**	**146415**	375	67.8
16 Sloped channel (1m)	**144016**	**144416**	180	18.2	**145016**	**145416**	280	45.4	**146016**	**146416**	380	68.3
17 Sloped channel (1m)	**144017**	**144417**	185	18.6	**145017**	**145417**	285	45.9	**146017**	**146417**	385	68.9
18 Sloped channel (1m)	**144018**	**144418**	190	18.9	**145018**	**145418**	290	46.4	**146018**	**146418**	390	69.4
19 Sloped channel (1m)	**144019**	**144419**	195	19.3	**145019**	**145419**	295	46.9	**146019**	**146419**	395	69.9
20 Sloped channel(1m)[1]	**144020**	**144420**	200	19.7	**145020**	**145420**	300	47.4	**146020**	**146420**	400	70.5
020 Neutral channel (1m)[1]	**144045**	**144445**	200	19.7	**145045**	**145445**	300	47.4	**146045**	**146445**	400	70.5
0203 Neutral channel (0.5m)[1]	**144046**	**144446**	200	9.3	**145046**	**145446**	300	29.0	**146046**	**146446**	400	37.3
21 Sloped channel (1m)	**144021**	**144421**	205	20.0	**145021**	**145421**	305	47.9	**146021**	**146421**	405	71.1
22 Sloped channel (1m)	**144022**	**144422**	210	20.4	**145022**	**145422**	310	48.4	**146022**	**146422**	410	71.6
23 Sloped channel (1m)	**144023**	**144423**	215	20.8	**145023**	**145423**	315	48.9	**146023**	**146423**	415	72.2
24 Sloped channel (1m)	**144024**	**144424**	220	21.1	**145024**	**145424**	320	49.4	**146024**	**146424**	420	72.7
25 Sloped channel (1m)[1]	**144025**	**144425**	225	21.5	**145025**	**145425**	325	49.9	**146025**	**146425**	425	73.3
26 Sloped channel (1m)	**144026**	**144426**	230	21.9	**145026**	**145426**	330	50.4	**146026**	**146426**	430	73.8
27 Sloped channel (1m)	**144027**	**144427**	235	22.2	**145027**	**145427**	335	50.9	**146027**	**146427**	435	74.3
28 Sloped channel (1m)	**144028**	**144428**	240	22.6	**145028**	**145428**	340	51.4	**146028**	**146428**	440	74.9
29 Sloped channel (1m)	**144029**	**144429**	245	23.0	**145029**	**145429**	345	51.9	**146029**	**146429**	445	75.4
30 Sloped channel (1m)[1]	**144030**	**144430**	250	23.3	**145030**	**145430**	350	52.4	**146030**	**146430**	450	76.0
030 Neutral channel (1m)[1]	**144047**	**144447**	250	23.3	**145047**	**145447**	350	52.4	**146047**	**146447**	450	76.0
0303 Neutral channel (0.5m)[1]	**144048**	**144448**	250	10.9	**145048**	**145448**	350	30.8	**146048**	**146448**	450	40.6
31 Sloped channel (1m)	**144031**	**144431**	255	23.7	**145031**	**145431**	355	52.9	**146031**	**146431**	455	76.5
32 Sloped channel (1m)	**144032**	**144432**	260	24.0	**145032**	**145432**	360	53.4	**146032**	**146432**	460	77.1
33 Sloped channel (1m)	**144033**	**144433**	265	24.4	**145033**	**145433**	365	53.9	**146033**	**146433**	465	77.6
34 Sloped channel (1m)	**144034**	**144434**	270	24.8	**145034**	**145434**	370	54.4	**146034**	**146434**	470	78.2
35 Sloped channel (1m)[1]	**144035**	**144435**	275	25.1	**145035**	**145435**	375	54.9	**146035**	**146435**	475	78.7
36 Sloped channel (1m)	**144036**	**144436**	280	25.5	**145036**	**145436**	380	55.4	**146036**	**146436**	480	79.2
37 Sloped channel (1m)	**144037**	**144437**	285	25.9	**145037**	**145437**	385	55.9	**146037**	**146437**	485	79.8
38 Sloped channel (1m)	**144038**	**144438**	290	26.3	**145038**	**145438**	390	56.4	**146038**	**146438**	490	80.3
39 Sloped channel (1m)	**144039**	**144439**	295	26.6	**145039**	**145439**	395	56.9	**146039**	**146439**	495	80.9
40 Sloped channel (1m)[1]	**144040**	**144440**	300	27.0	**145040**	**145440**	400	57.4	**146040**	**146440**	500	81.4
040 Neutral channel (1m)[1]	**144049**	**144449**	300	27.0	**145049**	**145449**	400	57.4	**146049**	**146449**	500	81.4
0403 Neutral channel (0.5m)[1]	**144050**	**144450**	300	12.5	**145050**	**145450**	400	34.9	**146050**	**146450**	500	44.3
Type 900 In-line pit (0.5m)[3]	**141817**	**141818**	723[4]	23.9	**141819**	**141820**	843[4]	30.8	**141821**	**141822**	956[4]	39.9
Type 900 In-line plastic rubbish basket	**01498**		–	0.5	**13999**		–	0.5	**98653**		–	1.6
Optional plastic riser									**141729**		300	4.5
Plastic rubbish basket – long									**98665**		–	1.8
Universal end cap	**96822**		315[4]	0.2	**96821**		420[4]	0.6	**96826**		520[4]	1.1
Debris strainer for 100mm knockout	**93488**		–	0.1	**93488**		–	0.1				
Installation device	**97477**		–	1.3	**97478**		–	1.8	**97479**		–	2.2
Grate removal tool	**01318**		–	0.1	**01318**		–	0.1	**01318**		–	0.1

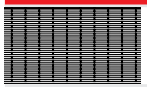
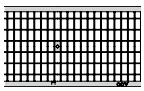
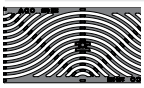
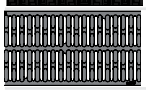
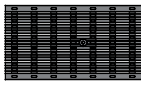
Notes:
1. This channel offers bottom knockout feature; K100 – 100mm round & 150mm oval, K200 – 100mm & 150mm round, K300 – 150mm & 200mm round.
2. Inverts shown are male end, for female invert depth – subtract 5mm from male invert (except neutral channels where it will be same as male invert).
   To calculate overall channel depth: K100, add 20mm to invert depth; K200/K300, add 25mm to invert depth.
3. In-line pit assembly (polymer concrete top with galvanised (G)/stainless (S) steel edge rail and plastic base). Select appropriate grate to suit.
4. Overall depth of in-line pit and end caps.

KlassikDrain DrainLok grates

K100 grates

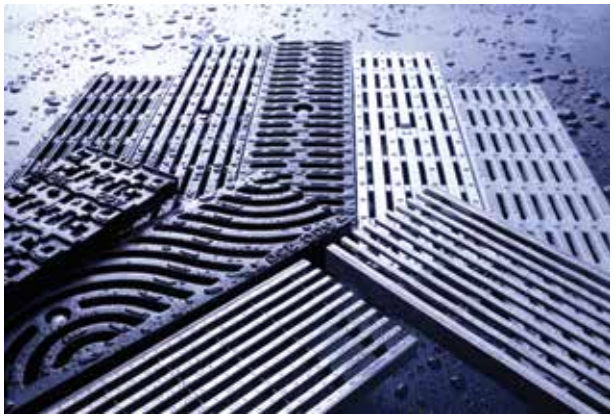
		Length mm	Part No.	Wgt kg				
LOAD CLASS A – AS 3996 – 10kN – approximate wheel load 330kg								
	Type 494D Black Plastic Intercept **Heelsafe®** *Anti-Slip*	500	**142459**	0.8	✓	✓	✓	✓
	Type 495D Grey Plastic Intercept **Heelsafe®** *Anti-Slip*	500	**142460**	0.8	✓	✓	✓	✓
	Type 420D/421D Galv Slotted	1000 500	**12610** **12611**	2.7 1.4	✓	✗	✓	✗
	Type 450D/452D Stainless Slotted	1000 500	**12640** **12641**	2.7 1.4	✓	✗	✓	✗
	Type 445Q/446Q Stainless Wedgwire	1000 500	**141202** **141204**	2.5 1.3	✓	✓	✓	✗
LOAD CLASS B – AS 3996 – 80kN – approximate wheel load 2,670kg								
 ★ See Below	Type 443D/444D Stainless 5 Star[1] **Heelsafe®** *Anti-Slip*	1000 500	**142217** **142218**	3.2 1.6	✓	✓	✓	✓
 ▲ See Below	Type 437D/438D Galv Longitudinal **Heelsafe®** *Anti-Slip*	1000 500	**132556** **132551**	4.0 2.1	✓	✓	✓	✓
 ▲ See Below	Type 439D/440D Stainless Longitudinal **Heelsafe®** *Anti-Slip*	1000 500	**132555** **132550**	4.0 2.1	✓	✓	✓	✓
LOAD CLASS D – AS 3996 – 210kN – approximate wheel load 8,000kg								
	Type 492D Plastic Slotted[1] **Heelsafe®** *Anti-Slip*	500	**132720**	1.0	✓	✓	✓	✓
	Type 425D/426D Galv Slotted	1000 500	**12614** **12615**	4.0 2.0	✓	✗	✓	✗
	Type 455D/457D Stainless Slotted	1000 500	**12644** **12645**	4.0 2.0	✓	✗	✓	✗
	Type 405Q/406Q Galv Mesh[2]	1000 500	**142401** **142402**	4.3 2.2	✗	✗	✓	✗
	Type 430Q/431Q Stainless Mesh[2]	1000 500	**142403** **142404**	4.1 2.1	✗	✗	✓	✗
	Type 480D Iron Wave[1] **Heelsafe®** *Anti-Slip*	500	**142461**	4.5	✓	✓	✓	✓
	Type 481Q Iron Decorative **Heelsafe®** *Anti-Slip*	500	**97120**	4.1	✓	✓	✓	✓
	Type 461D Iron Slotted	500	**12670**	4.6	✓	✗	✓	✗
	Type 478D Iron Intercept[1] **Heelsafe®** *Anti-Slip*	500	**142171**	5.8	✓	✓	✓	✓
	Type 477D Iron Galv Intercept[1] **Heelsafe®** *Anti-Slip*	500	**142172**	5.8	✓	✓	✓	✓

K200 grates

		Length mm	Part No.	Wgt kg				
LOAD CLASS B – AS 3996 – 80kN – approximate wheel load 2,670kg								
	Type 643D/644D Stainless 5 Star[1] **Heelsafe®** *Anti-Slip*	1000 500	**142221** **142222**	7.5 3.7	✓	✓	✓	✓
	Type 607Q/608Q Galv Transverse[2]	1000 500	**141749** **141716**	7.8 4.2	✗	✗	✓	✗
LOAD CLASS D – AS 3996 – 210kN – approximate wheel load 8,000kg								
	Type 605Q/606Q Galv Mesh[2] Type 630Q/631Q Stainless Mesh[2]	1000 500 1000 500	**141741** **141742** **141746** **141747**	13.8 7.1 13.0 6.6	✗ ✗	✗ ✗	✓ ✓	✗ ✗
	Type 680D Iron Wave[1] **Heelsafe®** *Anti-Slip*	500	**142462**	12.7	✓	✓	✓	✓
	Type 681Q Iron Decorative **Heelsafe®** *Anti-Slip*	500	**93956**	12.2	✓	✓	✓	✓
	Type 661D Iron Slotted	500	**142177**	12.0	✓	✗	✓	✗
	Type 678D Iron Intercept[1] **Heelsafe®** *Anti-Slip*	500	**142173**	10.0	✓	✓	✓	✓
	Type 677D Iron Galv Intercept[1] **Heelsafe®** *Anti-Slip*	500	**142174**	10.0	✓	✓	✓	✓

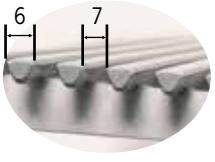
Heelsafe® *Anti-Slip* grates

ACO believes that pedestrian friendly grates and slip resistance go hand in hand. The grates with the trademark, **Heelsafe®** *Anti-Slip* comply to AS 3996, AS 4586 and all the specific user requirements described opposite. For more information visit **www.heelsafe.com.au**

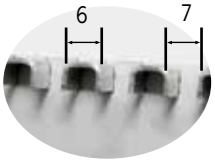


KlassikDrain's **Heelsafe®** *Anti-Slip* grate range

Stainless Wire Cross-sections

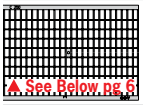
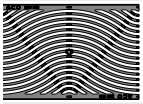
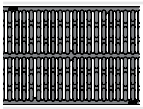
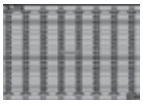


★ **Wedgewire 5 Star**



▲ **Longitudinal**

K300 grates

		Length mm	Part No.	Wgt kg				
LOAD CLASS B – AS 3996 – 80kN – approximate wheel load 2,670kg								
 ★ See Below pg 6	Type 843D/844D Stainless 5 Star[1] **Heelsafe®** *Anti-Slip*	1000 500	**142225** **142226**	12.5 6.2	✓	✓	✓	✓
 ★ See Below pg 6	Type 807Q/808Q Galv Transverse[2]	1000 500	**141750** **141717**	12.4 6.3	×	×	✓	×
LOAD CLASS D – AS 3996 – 210kN – approximate wheel load 8,000kg								
 ▲ See Below pg 6	Type 805Q Galv Mesh[2] Type 830Q Stainless Mesh[2]	500 500	**141743** **141748**	12.7 15.1	×	×	✓	×
	Type 880Q Iron Wave[1] **Heelsafe®** *Anti-Slip*	500	**142463**	21.8	✓	✓	✓	✓
	Type 881Q Iron Decorative **Heelsafe®** *Anti-Slip*	500	**141754**	21.3	✓	✓	✓	✓
	Type 861Q Iron Slotted	500	**13870**	19.0	✓	×	✓	×
	Type 878Q Iron Intercept[1] **Heelsafe®** *Anti-Slip*	500	**93901**	15.9	✓	✓	✓	✓
	Type 877Q Iron Galv Intercept[1] **Heelsafe®** *Anti-Slip*	500	**142176**	15.9	✓	✓	✓	✓

[1] Meets ASME A112.6.3 Section 7.12 (American high heel standard).

[2] Denotes QuickLok grates. QuickLok bar included in grate Part Number.

Specific user requirements

ACO's grates meet some or all of the legislative requirements described below:

- Wheelchair compliant to AS 1428.2, Clause 9(c). Slots cannot exceed 13mm (width), 150mm (length). Longitudinal grates are to be placed at right angles to the principal direction of travel.
- Grates designed to resist the penetration of a 10mm heel.
- Bicycle tyre penetration resistant to AS 3996. Criteria on slot length dependant on slot width.
- Pedestrian safe grates with slip resistance, rated to AS 4586.

DrainLok – barless and boltless locking system

Fast locking device removes the need for bars and bolts and improves the channels hydraulic capacity. The DrainLok mechanism simply clips into the channel edge rail for quick installation. ACO's DrainLok grates are fitted with anti–shunt lugs that restrict grate movement when installed, improving durability and longevity of the system.

1

PLACE GRATE

Position grate onto channel and align anti–shunt lugs with the recess in the rail.

2

SECURE GRATE

Push down or stand on the grate until it clicks into position.

3

GRATE REMOVAL

To remove first grate, insert grate removal tool into slots at the end of the grate and pull up sharply. Remaining grates can be removed by hand.

ACO Products

Building Drainage

ACO Wexel
Cast iron floor and roof drains

ACO Stainless
Industrial stainless steel linear drainage systems

ACO Food
Stainless steel drainage systems for food and beverage applications

ACO Gully
Stainless steel floor gullies for hygiene and chemical resistance.

ACO Pipe
Stainless steel push-fit waste pipe system.

ACO Buildline
Drainage products for thresholds, balconies, green roofs and building facades.

ACO Passavant
Grease separators, freestanding and in ground types

QuARTz by ACO
Designer bathroom floor drainage solutions

Surface Water Management

ACO Drain
Modular trench drain systems for commercial, industrial and landscape applications.

ACO Sport
Surface drainage and building accessories for track & field.

ACO Infrastructure
Surface drainage products engineered for highways, urban roads and bridges.

ACO Cablemate
Electrical and communication pits/ducts with a variety of covers.

ACO StormBrixx
A unique and patented plastic geocellular storm water management system.

ACO Self
Simple drainage and building components

ACO Access
Access covers available in a number of sizes and materials

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aconz.co.nz

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