

Commercial Trench Drains



ACO DRAIN

PowerDrain Leaflet

Introduction to the heavy duty PowerDrain Line

S100K - 4" internal width, iron edge channel

S200K - 8" internal width, iron edge channel

S300K - 12" internal width, iron edge channel



ACO DRAIN

ACO Drain is the market leading modular trench drain system and is ideal for commercial applications varying from gas stations to airports.

ACO Drain systems consist of factory manufactured modular channel units made from either corrosion resistant polymer concrete or fiberglass, together with grates from a variety of materials for all loading applications. ACO Drain systems are available in 2", 4", 8" and 12" internal widths, and are available with a built-in slope for up to 130 ft (40 meters) of continuous slope.

The ACO Drain product line is segmented into different product types – dependent on use.

1. Standard Products

KlassikDrain
PowerDrain

2. Problem Solvers

FlowDrain
SlabDrain
Brickslot
MembraneDrain
MiniKlassik
ChemDrain



PowerDrain

Heavy duty sloped trench drain system ideal for applications requiring the most rugged product. PowerDrain features an integrally cast-in ductile iron edge rail, and choice of slotted and longitudinally slotted ductile iron grates up to EN 1433 Load Class F (90 ton loading).

PowerDrain is available in 4" (\$100K), 8" (\$200K) and 12" (\$300K) internal width systems and features the patented PowerLok boltless locking system to secure grates.

PowerDrain is supplied as a complete system; channel and grate together. Select longitudinally slotted grates for applications that must meet ADA requirements.

For applications requiring increased corrosion resistance, all polymer concrete parts can be produced using a Vinylester resin, providing a significantly higher chemical resistance. Refer to the full ACO Drain Technical Handbook or contact your nearest ACO sales office for details.

Typical applications

- Airports
- Highways
- Heavy duty industrial areas
- Gas stations
- Docks & ports
- Military bases
- Truck stops



ACO DRAIN

Product overview - S100K/S200K/S300K



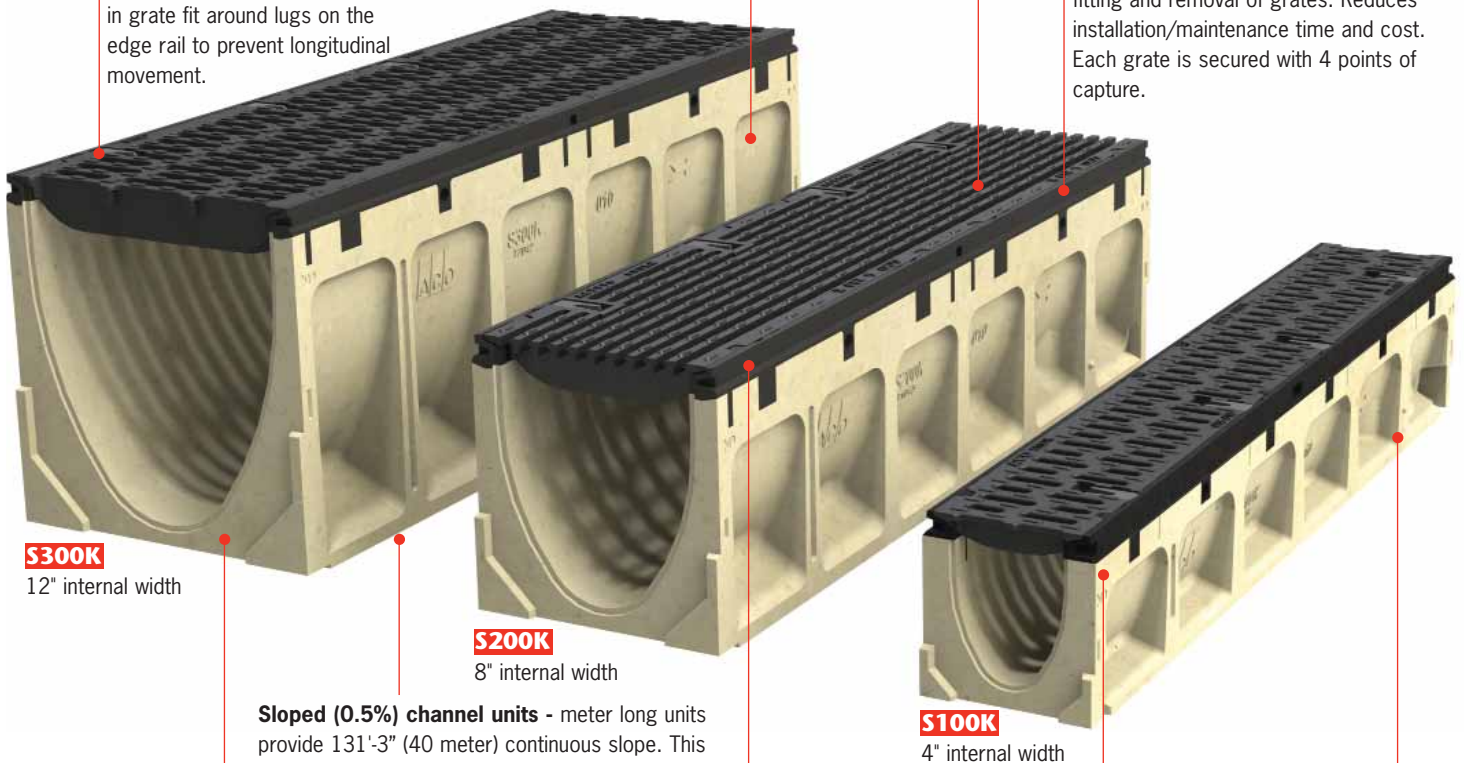
'Anti-shunt' lugs - recesses in grate fit around lugs on the edge rail to prevent longitudinal movement.



Ductile iron grates - EN 1433 Load Class F (90 ton) heavy duty ductile iron slotted or ADA compliant longitudinally slotted grates. S200K & S300K ADA compliant grates are Load Class E (60 ton).

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

PowerLock - is a patented, boltless locking system that provides easy fitting and removal of grates. Reduces installation/maintenance time and cost. Each grate is secured with 4 points of capture.

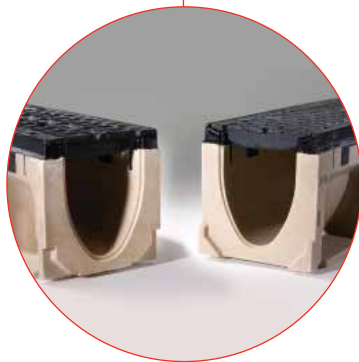


S300K
12" internal width

S200K
8" internal width

S100K
4" internal width

Sloped (0.5%) channel units - meter long units provide 131'-3" (40 meter) continuous slope. This equates to 1/17" fall per linear foot. Five neutral channels extend run lengths. Four half-meter units and accessories also available.



Interconnecting end profiles allow easy and effective joining of channels. **SF Sealant Groove** - a 3/16" by 5/16" groove is cast into both ends of every channel. The combined groove this creates allows for a positive bead of appropriate flexible sealant to be inserted at joints.

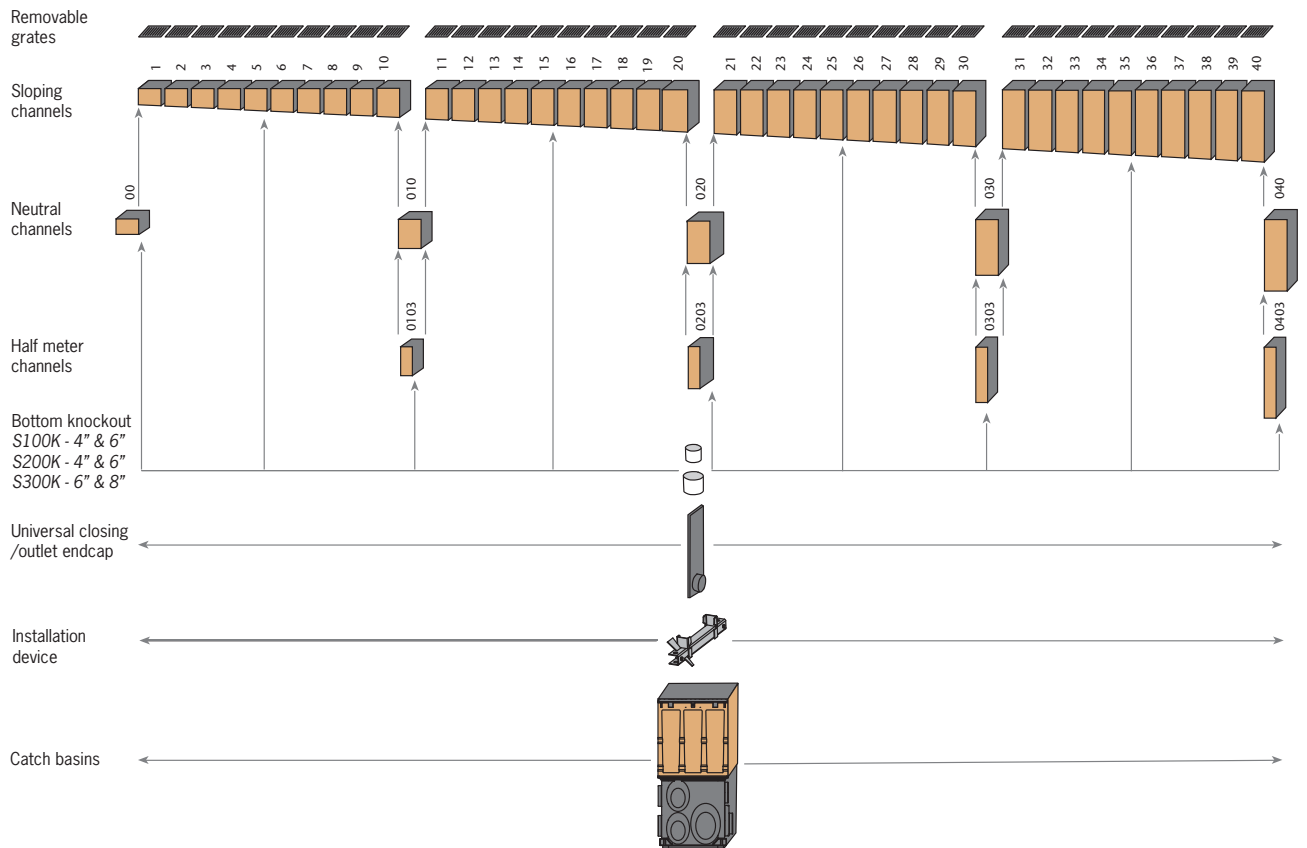
Channel identification & system numbering - in addition to channel numbering on sidewalls and base of channel, each end of the channel indicates the number of the channel that will connect to it.



Knock-outs are included on every 5th channel unit to allow vertical evacuation of the system along the run.

Ductile iron edge rail - integrally cast-in rail provides maximum strength and protection for channel body.

Typical system layout - S100K/S200K/S300K



PowerLok - boltless locking system



To open PowerLok, insert tool between rail and PowerLok device.



Rotate tool 90°; PowerLok device should push away from rail.



To close, place hook part of tool into 'V' and push towards rail.

PowerLok - Safety clip



For areas of security or safety concerns, the PowerLok safety clip provides a visual alert of PowerLok lockings.



The safety clip push-fits next to the locked PowerLok device. Safety clip sits flush with grate surface and grate cannot be unlocked.



To open PowerLok device, the safety clip must be removed. If no red block visible the locking is not guaranteed, providing a visual alert that grates may not be locked.

ACO DRAIN

Parts table

	S100K - 4" internal width				S200K - 8" internal width				S300K - 12" internal width			
	Part No		Invert	Weight	Part No		Invert	Weight	Part No		Invert	Weight
	Slotted	ADA	Inches ²	Lbs ³	Slotted	ADA	Inches ²	Lbs ³	Slotted	ADA	Inches ²	Lbs ³
00 Neutral channel - 39.37" (1m)¹	70041	70141	3.94	74.1	71041	71141	7.87	141.2	72041	72141	11.81	230.2
1 Sloped channel - 39.37" (1m)	70001	70101	4.13	74.1	71001	71101	8.07	141.2	72001	72101	12.01	230.2
2 Sloped channel - 39.37" (1m)	70002	70102	4.33	75.1	71002	71102	8.27	142.3	72002	72102	12.20	231.4
3 Sloped channel - 39.37" (1m)	70003	70103	4.53	76.1	71003	71103	8.46	143.4	72003	72103	12.40	232.7
4 Sloped channel - 39.37" (1m)	70004	70104	4.72	77.1	71004	71104	8.66	144.5	72004	72104	12.60	233.9
5 Sloped channel - 39.37" (1m) ¹	70005	70105	4.92	78.1	71005	71105	8.86	145.6	72005	72105	12.80	235.1
6 Sloped channel - 39.37" (1m)	70006	70106	5.12	79.1	71006	71106	9.06	146.7	72006	72106	12.99	236.4
7 Sloped channel - 39.37" (1m)	70007	70107	5.31	80.1	71007	71107	9.25	147.8	72007	72107	13.19	237.6
8 Sloped channel - 39.37" (1m)	70008	70108	5.51	81.1	71008	71108	9.45	148.9	72008	72108	13.39	238.8
9 Sloped channel - 39.37" (1m)	70009	70109	5.71	82.1	71009	71109	9.65	150.0	72009	72109	13.58	240.0
10 Sloped channel - 39.37" (1m) ¹	70010	70110	5.91	83.1	71010	71110	9.84	151.1	72010	72110	13.78	241.3
010 Neutral channel - 39.37" (1m)¹	70043	70143	5.91	83.1	71043	71143	9.84	151.2	72042	72142	13.78	241.3
0103 Neutral channel - 19.69" (0.5m)¹	70044	70144	5.91	42.4	71044	71144	9.84	89.2	72045	72145	13.78	127.9
11 Sloped channel - 39.37" (1m)	70011	70111	6.10	84.1	71011	71111	10.04	152.2	72011	72111	13.98	242.5
12 Sloped channel - 39.37" (1m)	70012	70112	6.30	85.1	71012	71112	10.24	153.3	72012	72112	14.17	243.7
13 Sloped channel - 39.37" (1m)	70013	70113	6.50	86.1	71013	71113	10.43	154.4	72013	72113	14.37	245.0
14 Sloped channel - 39.37" (1m)	70014	70114	6.69	87.1	71014	71114	10.63	155.6	72014	72114	14.57	246.2
15 Sloped channel - 39.37" (1m) ¹	70015	70115	6.89	88.1	71015	71115	10.83	156.7	72015	72115	14.76	247.4
16 Sloped channel - 39.37" (1m)	70016	70116	7.09	89.1	71016	71116	11.02	157.8	72016	72116	14.96	248.7
17 Sloped channel - 39.37" (1m)	70017	70117	7.28	90.1	71017	71117	11.22	158.9	72017	72117	15.16	249.9
18 Sloped channel - 39.37" (1m)	70018	70118	7.48	91.1	71018	71118	11.42	160.0	72018	72118	15.35	251.1
19 Sloped channel - 39.37" (1m)	70019	70119	7.68	92.1	71019	71119	11.61	161.1	72019	72119	15.55	252.4
20 Sloped channel - 39.37" (1m) ¹	70020	70120	7.87	93.1	71020	71120	11.81	162.2	72020	72120	15.75	253.6
020 Neutral channel - 39.37" (1m)¹	70045	70145	7.87	93.1	71045	71145	11.81	162.2	72044	72144	15.75	253.6
0203 Neutral channel - 19.69" (0.5m)¹	70046	70146	7.87	46.9	71046	71146	11.81	96.8	72047	72147	15.75	134.9
21 Sloped channel - 39.37" (1m)	70021	70121	8.07	94.1	71021	71121	12.01	163.3	72021	72121	15.94	254.8
22 Sloped channel - 39.37" (1m)	70022	70122	8.27	95.1	71022	71122	12.20	164.4	72022	72122	16.14	256.1
23 Sloped channel - 39.37" (1m)	70023	70123	8.46	96.0	71023	71123	12.40	165.5	72023	72123	16.34	257.3
24 Sloped channel - 39.37" (1m)	70024	70124	8.66	97.0	71024	71124	12.60	166.6	72024	72124	16.54	258.5
25 Sloped channel - 39.37" (1m) ¹	70025	70125	8.86	98.0	71025	71125	12.80	167.7	72025	72125	16.73	259.7
26 Sloped channel - 39.37" (1m)	70026	70126	9.06	99.0	71026	71126	12.99	168.8	72026	72126	16.93	261.0
27 Sloped channel - 39.37" (1m)	70027	70127	9.25	100.0	71027	71127	13.19	169.9	72027	72127	17.13	262.2
28 Sloped channel - 39.37" (1m)	70028	70128	9.45	101.0	71028	71128	13.39	171.0	72028	72128	17.32	263.4
29 Sloped channel - 39.37" (1m)	70029	70129	9.65	102.0	71029	71129	13.58	172.1	72029	72129	17.52	264.7
30 Sloped channel - 39.37" (1m) ¹	70030	70130	9.84	103.0	71030	71130	13.78	173.2	72030	72130	17.72	265.9
030 Neutral channel - 39.37" (1m)¹	70047	70147	9.84	103.0	71047	71147	13.78	173.2	72046	72146	17.72	265.9
0303 Neutral channel - 19.69" (0.5m)¹	70048	70148	9.84	51.4	71048	71148	13.78	101.3	72049	72149	17.72	142.1
31 Sloped channel - 39.37" (1m)	70031	70131	10.04	104.0	71031	71131	13.98	174.4	72031	72131	17.91	267.1
32 Sloped channel - 39.37" (1m)	70032	70132	10.24	105.0	71032	71132	14.17	175.5	72032	72132	18.11	268.4
33 Sloped channel - 39.37" (1m)	70033	70133	10.43	106.0	71033	71133	14.37	176.6	72033	72133	18.31	269.6
34 Sloped channel - 39.37" (1m)	70034	70134	10.63	107.0	71034	71134	14.57	177.7	72034	72134	18.50	270.8
35 Sloped channel - 39.37" (1m) ¹	70035	70135	10.83	108.0	71035	71135	14.76	178.8	72035	72135	18.70	272.1
36 Sloped channel - 39.37" (1m)	70036	70136	11.02	109.0	71036	71136	14.96	179.9	72036	72136	18.90	273.3
37 Sloped channel - 39.37" (1m)	70037	70137	11.22	110.0	71037	71137	15.16	181.0	72037	72137	19.09	274.5
38 Sloped channel - 39.37" (1m)	70038	70138	11.42	111.0	71038	71138	15.35	182.1	72038	72138	19.29	275.7
39 Sloped channel - 39.37" (1m)	70039	70139	11.61	112.0	71039	71139	15.55	183.2	72039	72139	19.49	277.0
40 Sloped channel - 39.37" (1m) ¹	70040	70140	11.81	113.0	71040	71140	15.75	184.3	72040	72140	19.69	278.2
040 Neutral channel - 39.37" (1m)¹	70049	70149	11.81	113.0	71049	71149	15.75	184.3	72048	72148	19.69	278.2
0403 Neutral channel - 19.69" (0.5m)¹	70050	70150	11.81	56.0	71050	71150	15.75	110.1	72050	72150	19.69	150.3
Type 900 In-line catch basin - 19.69" (0.5m) ⁴	94610	94613	-	99.0	94616	94619	-	109.8	94622	94572	-	151.4
SK3-904D In-line catch basin - 19.69" (0.5m) ⁵	-	-	-	-	-	-	-	-	94581	94582	-	-
621D/631D catch basin - 19.69" (0.5m) ⁴	94573	94574	-	88.7	94575	94576	-	144.0	-	-	-	-
Type 600 Optional riser	99902	-	-	10.0	99902	-	-	10.0	99902	-	-	10.0
Foul air trap - fits both 910 & 610 basins	90854	-	-	1.2	90854	-	-	1.2	90854	-	-	1.2
SK1-304-6 6" Inlet Cap	96861	-	9.84	6.2	-	-	-	-	-	-	-	-
SK1-308-6 6" Outlet Cap	96862	-	9.84	6.0	-	-	-	-	-	-	-	-
SK1-404-6 6" Inlet Cap	96863	-	11.81	7.2	-	-	-	-	-	-	-	-
SK1-408-6 6" Outlet Cap	96864	-	11.81	7.0	-	-	-	-	-	-	-	-
Universal end cap	96824	-	11.81	0.4	96823	-	15.75	1.4	96827	-	19.69	2.5
Debris strainer for 4" bottom knockout	93488	-	-	0.2	93488	-	-	0.2	-	-	-	-
4" Oval to 6" round outlet adaptor	95140	-	-	1.1	-	-	-	-	-	-	-	-
Installation device	97477	-	-	2.8	97478	-	-	4.0	97479	-	-	4.9
Grate removal tool	01318	-	-	0.3	01318	-	-	0.3	01318	-	-	0.3

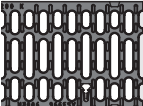
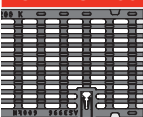
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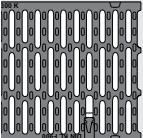
1. This channel offers bottom knockout feature; S100K - 4" round/6" oval, S200K - 4" & 6" round, S300K - 6" & 8" round.
2. Inverts shown are male end, for female invert depth - subtract 0.2" from male invert (except neutral channels where it will be same as male invert; To calculate Overall channel depth add 1.0" to invert depth.
3. ADA weights - add following to 1m channel/0.5m channels & in-line catch basins; S100K - 2.6lbs/1.3lbs, S200K - minus 7.5/3.75lbs, S300K - 28.0lbs/14.0lbs. Series 600 catch basins - 6.1lbs.
4. Catch basin assembly (polymer concrete top with ductile iron edge rail, PowerLok grate & plastic base) - includes trash bucket.
5. This catch basin assembly (polymer concrete top with ductile iron edge rail, PowerLok grate, plastic riser & plastic base) includes trash bucket.



PowerLok grates

S100K grates		Length mm	Wgt lbs			
LOAD CLASS F - EN 1433 - 200,000lbs - 4,182psi						
	Iron slotted	500	12.3	x	x	✓
	Iron longitudinal	500	13.6	✓	x	✓

S200K grates		Length mm	Wgt lbs			
LOAD CLASS F - EN 1433 - 200,000lbs - 3,485psi						
	Iron slotted	500	30.8	✓	x	✓
LOAD CLASS E - EN 1433 - 135,000lbs - 2,323psi						
	Iron longitudinal	500	26.4	✓	x	✓

S300K grates		Length mm	Wgt lbs			
LOAD CLASS F - EN 1433 - 200,000lbs - 3,485psi						
	Iron slotted	500	50.0	x	x	✓
LOAD CLASS E - EN 1433 - 135,000lbs - 2,323psi						
	Iron longitudinal	500	64.0	✓	x	✓

Catch basin options

Polymer concrete catch basins are used either as stand-alone area drains, or most commonly as the outlet to the underground pipe work for a trench run. They provide the highest hydraulic output and allow easy access to the pipe system for maintenance.

In-line catch basins

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



The polymer concrete in-line top allows use of same grate as trench run for seamless aesthetics.

Type 600 catch basins

Type 600 catch basins are 12" wide, provide greater hydraulic output and maintenance access.



The polymer concrete top comes in depths to suit channel system. Ductile iron rail and choice of grates to match channel grates. Type 600 catch basin not available for S300K.

SK1-901D

SK2-902D

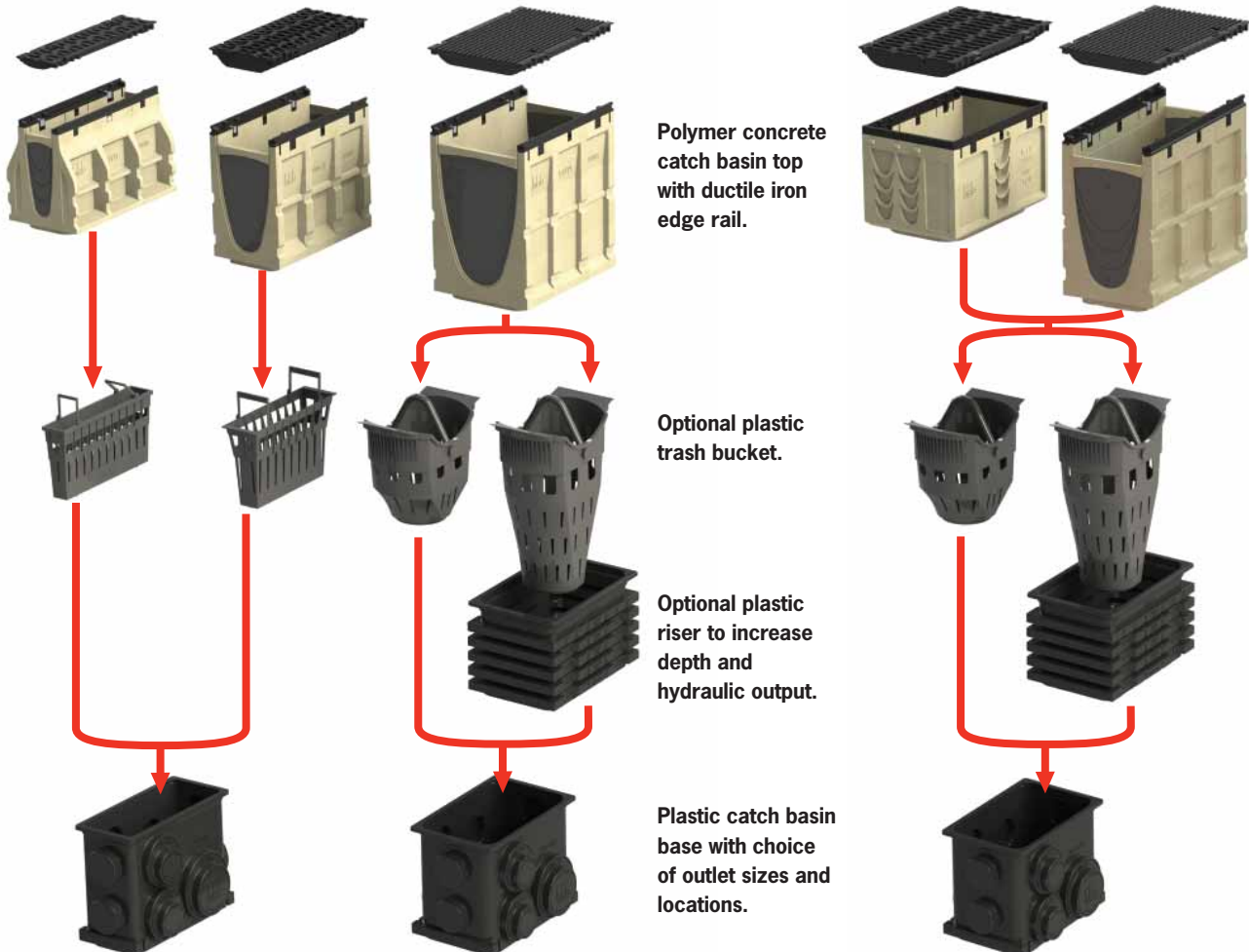
SK3-903D/SK3-904D

SK1-621D/SK1-631D

SK2-621D/SK2-631D

- use with S100K

- use with S200K



Both SK1-900 & SK2-900 in-line catch basins use same base - provides suitable width/access for pipe maintenance.



Other ACO DRAIN systems

KlassikDrain

The world's most widely used general purpose 4", 8" or 12" internal width trench drain system with wide range of grates.

FlowDrain

An 8" internal width system manufactured from corrosion resistant fiberglass, ideal for long straight runs in concrete slabs.

Brickslot

A discreet drainage solution for brick or stone pavers.

SlabDrain

For shallow slab areas where vertical depth is limited. SlabDrain is available with 3 different edge details and in 4", 8" or 12" widths.

MiniKlassik

A 2" internal width neutral system for high profile, aesthetic areas.

MembraneDrain

A two part system for use in non-habitable suspended slabs where a membrane is used.

ChemDrain

All polymer concrete parts are available in corrosion resistant Vinyl ester polymer concrete for more aggressive environments.

ACO Polymer Products, Inc.

West Sales Office

P.O. Box 12067
Casa Grande, AZ 85130
Tel: (520) 421-9988
Toll Free: (888) 490-9552
Fax: (520) 421-9899

Northeast Sales Office

P.O. Box 245
Chardon, OH 44024
Tel: (440) 285-7000
Toll free: (800) 543-4764
Fax: (440) 285-7005

Southeast Sales Office

4211 Pleasant Road
Fort Mill, SC 29708
Toll free: (800) 543-4764
Fax: (803) 802-1063

Electronic Contact:

info@acousa.com
www.acousa.com



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