

Surface Drainage and
Building Elements



ACO SPORT

System 4000 Product Brochure

**Open Trench Drain System for Tracks,
Sports Fields and Recreational Areas**



ACO SPORT System 4000

Sporting facilities can use a wide variety of hard & soft surface materials. All external venues should incorporate surface drainage to protect these sport surfaces.

Running tracks with poured/asphalt surfaces often utilize System 4000. System 4000 is available as a straight channel only. For 'D' areas it can either be combined with the System 2000 slotted channel, or the radius can be achieved by setting channels with a small gap at the outside of the joint. Half meter channels create a smoother looking radius. To avoid these gaps, channels can be miter cut at the end. For full details on creating a radius with straight channels, call ACO's Technical Department.

Team sport facilities/tennis courts are more suited to System 4000 as surfaces may be 'loose' or cannot be easily fixed down. An open system allows easy access for cleaning and removal of stray surface particles.

For recreation areas, effective drainage of trails, pathways and any hard paved area will prolong the life of the paving material and provide an all-weather, user-friendly environment.

Typical Applications

- *Running tracks*
- *Team sport facilities*
- *Tennis courts*
- *Other recreational areas*

System 4000 Channels

The 4" internal width channels are supplied in one meter (39.37") or half meter (19.69") lengths and are available in a choice of four neutral depths or thirty sloping depths.

A choice of grates is available and allow full access to the channel for maintenance.

Track Drainage



System 4000 Catch Basin

The System 4000 in-line catch basin has a 4" (100mm) internal width and uses the same grates as the rest of the system, therefore not disrupting the aesthetics.

An optional plastic trash bucket acts as a sieve to collect debris washed into the system. Regular emptying helps prevent pipe blockage and flooding.

Catch basins offer drill-outs for connection to Schedule 40 4" or 6" pipes. Other size pipes can be connected by custom cutting to fit using a core-drill.



Team Sports Facilities





Choice of grates - a light duty steel slotted or ADA compliant polyethylene slotted grate is available as standard. Grates are rated to Class A light duty and are suitable for the majority of projects. In areas where machinery or vehicles may traffic the grates, a heavier duty grate is recommended. ACO offers heavier duty grates as required.

'QuickLok' grate locking - a patented, 'push-fit' boltless locking system. Provides quick fitting and removal of grates, helps reduce installation/maintenance time and cost.

Polymer concrete - durable, yet lightweight, material made from polyester resin binder reinforced by mineral aggregates and fillers. Provides up to four times the compressive strength of cement concrete and almost twice the compressive strength of HDPE. Offers a thermal expansion ratio similar to the concrete surround, particularly important where long runs are used to prevent 'buckling'.

Sloping or neutral depths - thirty 1 meter (39.37") units with a 0.6% built-in slope can create a 98'-5" continuously sloping run. Neutral depth units are available in four depths to create constant depth runs, or can be combined with sloping units.

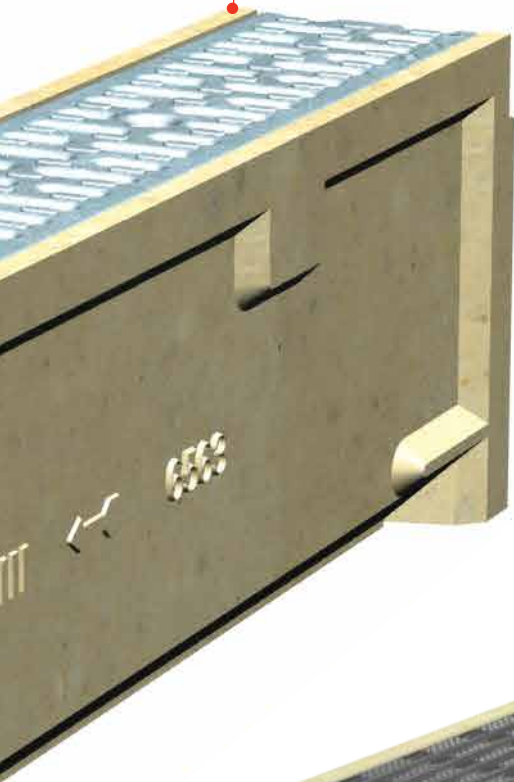
Interconnecting profiles - male/female end details allow easy and effective joining of channels.

'U' shape profile - offers excellent hydraulic performance, and grates can be removed to access channel for cleaning and maintenance.

Polymer concrete grate seat and edge detail - ideal for light to medium duty applications. Exposed edge will not rust and discolor surrounding surface materials.



Tennis Courts



Optional Safety Edge - To improve athlete safety 'Safety Edge' channels have been added to the ACO Sport range – these channels incorporate a cellular rubber top to provide a soft, safe edge along the field to help reduce injury. Also available on System 2000 and System 3000.



Track & Field



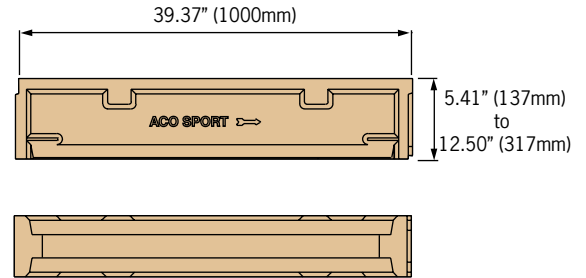
Profiled side walls - side pillars provide additional channel body strength, and concrete keys hold channel securely in concrete surround.

Direction arrows - arrows point from female end towards male end of channel. For track use these normally point clockwise around the track when viewed from inside the track. For other applications these arrows must point towards the outlet.

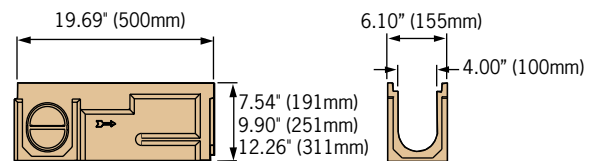
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	Part No	Length in (mm)	Overall Depth in (mm)	Weight lbs
System 4000 Channels				
4000-1 Sloped channel	00001	39.37 (1000)	5.65 (143)	32.0
4002 Neutral channel	06562	39.37 (1000)	5.65 (143)	32.9
4000-2 Sloped channel	00002	39.37 (1000)	5.88 (149)	32.9
4000-3 Sloped channel	00004	39.37 (1000)	6.12 (155)	33.8
4000-4 Sloped channel	00005	39.37 (1000)	6.35 (161)	34.7
4000-5 Sloped channel	00006	39.37 (1000)	6.59 (167)	35.6
4000-6 Sloped channel	00007	39.37 (1000)	6.83 (173)	36.5
4000-7 Sloped channel	00008	39.37 (1000)	7.06 (179)	37.4
4000-8 Sloped channel	00009	39.37 (1000)	7.30 (185)	38.3
4000-9 Sloped channel	00010	39.37 (1000)	7.54 (191)	39.2
4010 Neutral channel	06561	39.37 (1000)	7.54 (191)	40.1
40103 Neutral channel	00013	19.69 (500)	7.54 (191)	23.0
4000-10 Sloped channel	00014	39.37 (1000)	7.77 (197)	40.1
4000-11 Sloped channel	00015	39.37 (1000)	8.01 (203)	41.0
4000-12 Sloped channel	00016	39.37 (1000)	8.24 (209)	41.9
4000-13 Sloped channel	00017	39.37 (1000)	8.48 (215)	42.8
4000-14 Sloped channel	00018	39.37 (1000)	8.72 (221)	43.7
4000-15 Sloped channel	00019	39.37 (1000)	8.95 (227)	44.6
4000-16 Sloped channel	00020	39.37 (1000)	9.19 (233)	45.5
4000-17 Sloped channel	00346	39.37 (1000)	9.43 (239)	46.4
4000-18 Sloped channel	00021	39.37 (1000)	9.66 (245)	47.3
4000-19 Sloped channel	00022	39.37 (1000)	9.90 (251)	48.2
4020 Neutral channel	06563	39.37 (1000)	9.90 (251)	49.1
40203 Neutral channel	05502	19.69 (500)	9.90 (251)	26.0
4000-20 Sloped channel	00024	39.37 (1000)	10.13 (257)	49.1
4000-21 Sloped channel	00025	39.37 (1000)	10.37 (263)	50.0
4000-22 Sloped channel	00026	39.37 (1000)	10.61 (269)	50.9
4000-23 Sloped channel	00027	39.37 (1000)	10.84 (275)	51.8
4000-24 Sloped channel	00028	39.37 (1000)	11.08 (281)	52.7
4000-25 Sloped channel	00029	39.37 (1000)	11.31 (287)	53.6
4000-26 Sloped channel	00030	39.37 (1000)	11.55 (293)	54.5
4000-27 Sloped channel	00031	39.37 (1000)	11.79 (299)	55.6
4000-28 Sloped channel	00032	39.37 (1000)	12.02 (305)	56.5
4000-29 Sloped channel	00033	39.37 (1000)	12.26 (311)	57.4
4030 Neutral channel	00034	39.37 (1000)	12.26 (311)	58.3
40303 Neutral channel	05503	19.69 (500)	12.26 (311)	31.0
4000-30 Sloped channel	00035	39.37 (1000)	12.50 (317)	59.2
In-line Catch Basin				
In-line catch basin	05620	19.69 (500)	23.00 (585)	57.0
QuickLok bar for 05620	98717	-	-	0.1
Plastic trash bucket	01498	-	-	1.1
6" oval to round adapter	95140	-	-	1.1
Accessories				
Closing end cap	01078	-	12.50 (311)	4.2
104-4 Inlet cap - 4"	05651	-	7.54 (191)	3.2
204-4 Inlet cap - 4"	05573	-	9.90 (251)	3.2
204-6 Inlet cap - 6"	05574	-	9.90 (251)	3.6
304-4 Inlet cap - 4"	05652	-	12.25 (311)	3.2
304-6 Inlet cap - 6"	05569	-	12.25 (311)	3.6
108-4 Outlet cap - 4"	05571	-	7.77 (197)	3.2
208-4 Outlet cap - 4"	05653	-	10.13 (257)	3.2
208-6 Outlet cap - 6"	05570	-	10.13 (257)	3.6
308-4 Outlet cap - 4"	05575	-	12.50 (317)	3.2
308-6 Outlet cap - 6"	05572	-	12.50 (317)	3.6
Grates				
Steel slotted	31530	39.37 (1000)	-	5.9
Steel slotted	31531	19.69 (500)	-	3.0
Black ADA plastic	97393	19.69 (500)	-	1.8
Gray ADA plastic	97385	19.69 (500)	-	1.8
QuickLok locking bar	02899	-	-	0.2
Grate removal hook	01319	-	-	0.6
Safety Edge System - black TPE rubber				
SE4002 neutral channel	06564	39.37 (1000)	5.88 (149)	34.0
SE4010 neutral channel	06565	39.37 (1000)	7.54 (191)	41.0
SE4020 neutral channel	06566	39.37 (1000)	9.90 (251)	49.0
In-line catch basin	06567	19.69 (500)	23.00 (585)	59.0

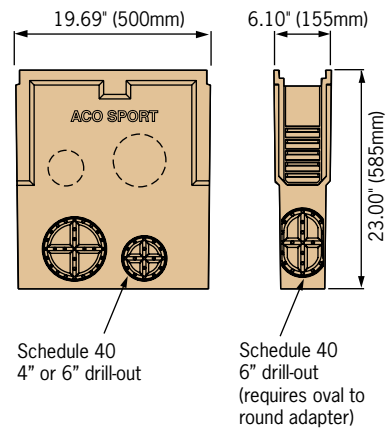
One meter channels



Half meter channels



Catch basin



Schedule 40
4" or 6" drill-out

Schedule 40
6" drill-out
(requires oval to
round adapter)

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Grates



1. Depth is overall depth at male (downstream) end - for depth at female end subtract 0.235" (65mm)
2. To calculate invert depth subtract 1.0" (25mm)



Other ACO SPORT systems

- **System 1000**
The premier running track drain system with canopy cover.
- **System 2000**
The premier slotted running track drain system as used on IAAF tracks.
- **System 3000**
The economical, general purpose running track slot drain system used by colleges and schools.
- **System 4000**
Open trench drain system for tracks, sports fields and recreational areas.
- **System 7000**
Modular jump pits, sand traps and rubber capped curbs for long jump pits.
- **System 8000**
A series of accessories for water jump, pole vault and throwing disciplines.
- **System 9000**
A simple polymer concrete stadium terracing and seating system for college and school facilities.

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Re-order Part # AS006