

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** can utilize System 4000, particularly those with poured/asphalt surfaces. System 4000 is available as a straight channel only. For 'D' areas it can either be combined with 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.

**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

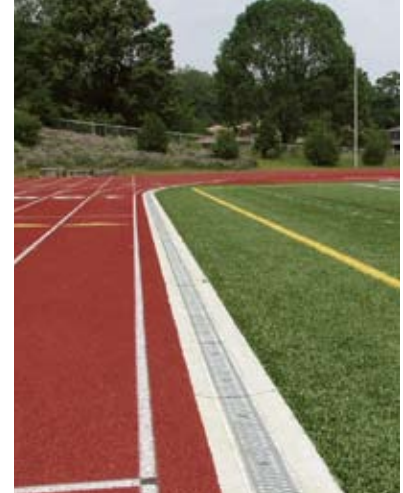
- *Running tracks*
- *Team sport facilities*
- *Tennis courts*
- *Other recreational areas*

### 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 are available and allow full access to the channel for maintenance.

### Track Drainage



### System 4000 Catch Basin

The System 4000 in-line catch basin is 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.

**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.

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

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

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

## Recreational Areas



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

**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.

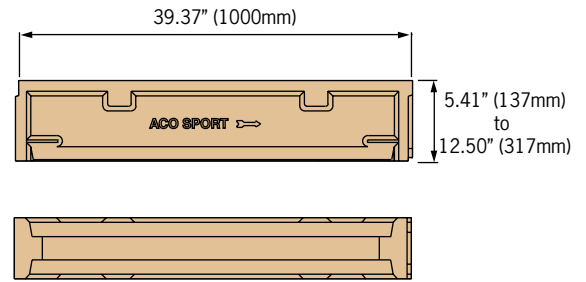
## Tennis Courts



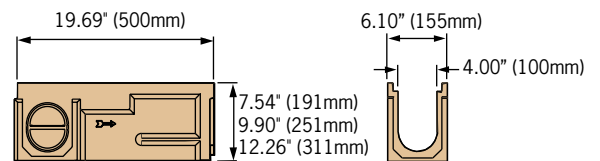
**Profiled side walls** - side pillars provide additional channel body strength, and concrete keys hold channel securely in concrete surround.

	Part No.	Length in (mm)	Width in (mm)	Height in (mm)	Weight lbs
<b>Channels</b>					
4000-1 Sloped channel	<b>00001</b>	39.37 (1000)	6.10 (155)	5.65 (143)	32.0
<b>4002 Neutral channel</b>	<b>06562</b>	<b>39.37 (1000)</b>	6.10 (155)	<b>5.65 (143)</b>	<b>32.9</b>
4000-2 Sloped channel	<b>00002</b>	39.37 (1000)	6.10 (155)	5.88 (149)	32.9
4000-3 Sloped channel	<b>00004</b>	39.37 (1000)	6.10 (155)	6.12 (155)	33.8
4000-4 Sloped channel	<b>00005</b>	39.37 (1000)	6.10 (155)	6.35 (161)	34.7
4000-5 Sloped channel	<b>00006</b>	39.37 (1000)	6.10 (155)	6.59 (167)	35.6
4000-6 Sloped channel	<b>00007</b>	39.37 (1000)	6.10 (155)	6.83 (173)	36.5
4000-7 Sloped channel	<b>00008</b>	39.37 (1000)	6.10 (155)	7.06 (179)	37.4
4000-8 Sloped channel	<b>00009</b>	39.37 (1000)	6.10 (155)	7.30 (185)	38.3
4000-9 Sloped channel	<b>00010</b>	39.37 (1000)	6.10 (155)	7.54 (191)	39.2
<b>4010 Neutral channel</b>	<b>06561</b>	<b>39.37 (1000)</b>	6.10 (155)	<b>7.54 (191)</b>	<b>40.1</b>
<b>40103 Neutral channel</b>	<b>00013</b>	<b>19.69 (500)</b>	6.10 (155)	<b>7.54 (191)</b>	<b>23.0</b>
4000-10 Sloped channel	<b>00014</b>	39.37 (1000)	6.10 (155)	7.77 (197)	40.1
4000-11 Sloped channel	<b>00015</b>	39.37 (1000)	6.10 (155)	8.01 (203)	41.0
4000-12 Sloped channel	<b>00016</b>	39.37 (1000)	6.10 (155)	8.24 (209)	41.9
4000-13 Sloped channel	<b>00017</b>	39.37 (1000)	6.10 (155)	8.48 (215)	42.8
4000-14 Sloped channel	<b>00018</b>	39.37 (1000)	6.10 (155)	8.72 (221)	43.7
4000-15 Sloped channel	<b>00019</b>	39.37 (1000)	6.10 (155)	8.95 (227)	44.6
4000-16 Sloped channel	<b>00020</b>	39.37 (1000)	6.10 (155)	9.19 (233)	45.5
4000-17 Sloped channel	<b>00346</b>	39.37 (1000)	6.10 (155)	9.43 (239)	46.4
4000-18 Sloped channel	<b>00021</b>	39.37 (1000)	6.10 (155)	9.66 (245)	47.3
4000-19 Sloped channel	<b>00022</b>	39.37 (1000)	6.10 (155)	9.90 (251)	48.2
<b>4020 Neutral channel</b>	<b>06563</b>	<b>39.37 (1000)</b>	6.10 (155)	<b>9.90 (251)</b>	<b>49.1</b>
<b>40203 Neutral channel</b>	<b>05502</b>	<b>19.69 (500)</b>	6.10 (155)	<b>9.90 (251)</b>	<b>26.0</b>
4000-20 Sloped channel	<b>00024</b>	39.37 (1000)	6.10 (155)	10.13 (257)	49.1
4000-21 Sloped channel	<b>00025</b>	39.37 (1000)	6.10 (155)	10.37 (263)	50.0
4000-22 Sloped channel	<b>00026</b>	39.37 (1000)	6.10 (155)	10.61 (269)	50.9
4000-23 Sloped channel	<b>00027</b>	39.37 (1000)	6.10 (155)	10.84 (275)	51.8
4000-24 Sloped channel	<b>00028</b>	39.37 (1000)	6.10 (155)	11.08 (281)	52.7
4000-25 Sloped channel	<b>00029</b>	39.37 (1000)	6.10 (155)	11.31 (287)	53.6
4000-26 Sloped channel	<b>00030</b>	39.37 (1000)	6.10 (155)	11.55 (293)	54.5
4000-27 Sloped channel	<b>00031</b>	39.37 (1000)	6.10 (155)	11.79 (299)	55.6
4000-28 Sloped channel	<b>00032</b>	39.37 (1000)	6.10 (155)	12.02 (305)	56.5
4000-29 Sloped channel	<b>00033</b>	39.37 (1000)	6.10 (155)	12.26 (311)	57.4
<b>4030 Neutral channel</b>	<b>00034</b>	<b>39.37 (1000)</b>	6.10 (155)	<b>12.26 (311)</b>	<b>58.3</b>
<b>40303 Neutral channel</b>	<b>05503</b>	<b>19.69 (500)</b>	6.10 (155)	<b>12.26 (311)</b>	<b>31.0</b>
4000-30 Sloped channel	<b>00035</b>	39.37 (1000)	6.10 (155)	12.50 (317)	59.2
<b>In-line catch basin</b>					
In-line catch basin	<b>05620</b>	19.69 (500)	6.10 (155)	23.00 (585)	57.0
QuickLok bar for 05620	<b>98717</b>	-	-	-	0.1
Plastic trash bucket	<b>01498</b>	-	-	-	1.1
6" oval to round adapter	<b>95140</b>	-	-	-	1.1
<b>Accessories</b>					
Closing end cap	<b>01078</b>	-	6.10 (155)	12.50 (311)	4.2
104-4 Inlet cap - 4"	<b>05651</b>	-	6.10 (155)	7.54 (191)	3.2
204-4 Inlet cap - 4"	<b>05573</b>	-	6.10 (155)	9.90 (251)	3.2
204-6 Inlet cap - 6"	<b>05574</b>	-	6.10 (155)	9.90 (251)	3.6
304-4 Inlet cap - 4"	<b>05652</b>	-	6.10 (155)	12.25 (311)	3.2
304-6 Inlet cap - 6"	<b>05569</b>	-	6.10 (155)	12.25 (311)	3.6
108-4 Outlet cap - 4"	<b>05571</b>	-	6.10 (155)	7.77 (197)	3.2
208-4 Outlet cap - 4"	<b>05653</b>	-	6.10 (155)	10.13 (257)	3.2
208-6 Outlet cap - 6"	<b>05570</b>	-	6.10 (155)	10.13 (257)	3.6
308-4 Outlet cap - 4"	<b>05575</b>	-	6.10 (155)	12.50 (317)	3.2
308-6 Outlet cap - 6"	<b>05572</b>	-	6.10 (155)	12.50 (317)	3.6
<b>Grates</b>					
Steel slotted	<b>31530</b>	39.37 (1000)	-	-	5.9
Steel slotted	<b>31531</b>	19.69 (500)	-	-	3.0
Black ADA plastic	<b>97393</b>	19.69 (500)	-	-	1.8
Gray ADA plastic	<b>97385</b>	19.69 (500)	-	-	1.8
Green ADA plastic	<b>97398</b>	19.69 (500)	-	-	1.8
Brick ADA plastic	<b>97396</b>	19.69 (500)	-	-	1.8
QuickLok locking bar	<b>02899</b>	-	-	-	0.2
Grate removal hook	<b>01319</b>	-	-	-	0.6

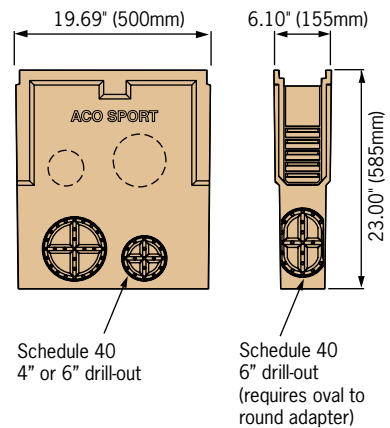
**One meter channels**



**Half meter channels**



**Catch basin**



**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 6000**  
The premier open channel drain system with synthetic turf clamping device.
- **System 7000**  
Sand traps and rubber capped curbs to fit around sand pits used for long jump and high jump.
- **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