

ACO Sport®

Drainage Elements for Athletic Venues

Product Line Overview



ACO. creating

the future of drainage

The ACO Group

Founded in 1946, the ACO Group is a world leader in drainage technology. Climate change sets us a challenge to react effectively with innovative solutions to new environmental conditions. With its integrated approach, ACO provides systems for professional surface water drainage, efficient cleaning, and the controlled discharge or reuse of water.

Products include:

- surface water drainage
- oil, sediment, heavy metal and grease separators
- detention, retention and infiltration systems
- flow control release products

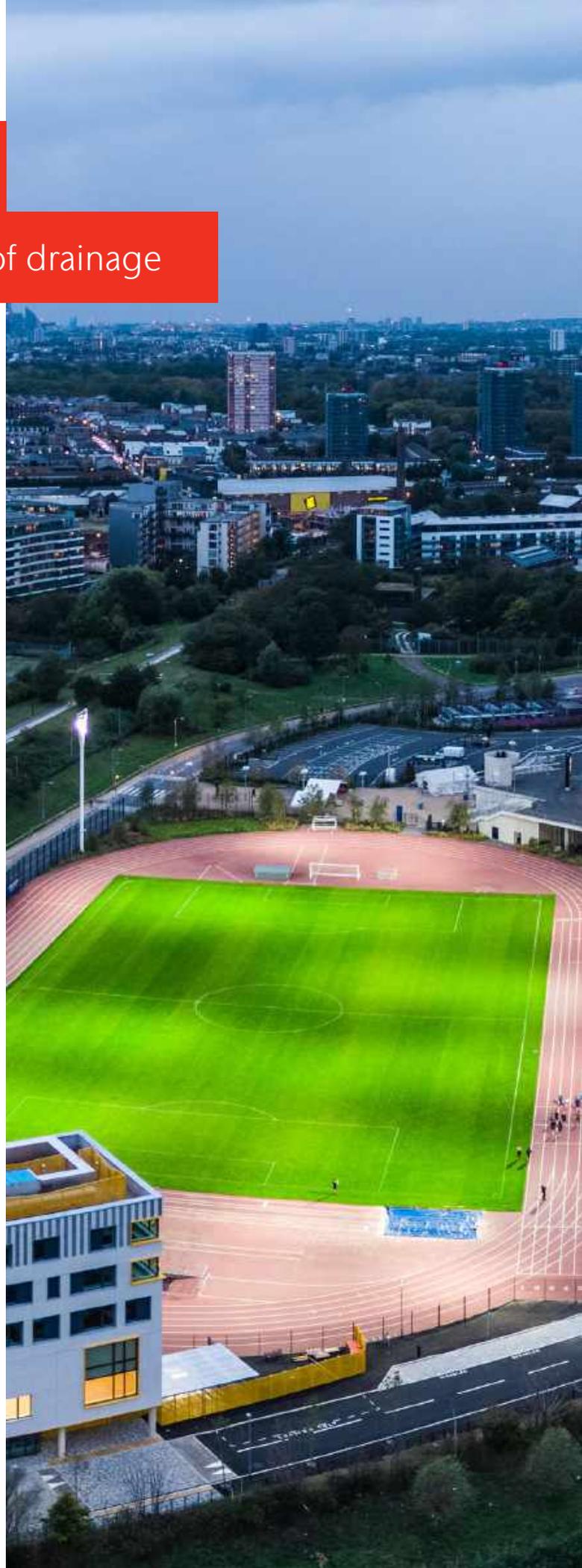
Major innovative strengths of the ACO Group are its continuous research & development and technical expertise in the processing of polymer concrete, plastics, cast iron, stainless steel and cement concretes.

ACO in the USA

ACO, Inc. was founded in Ohio, 1978. Since then, continuous growth in the USA has seen the company expand and build manufacturing facilities in Mentor, OH, and Casa Grande, AZ. The company has further locations in Phoenix, AZ, and Fort Mill, SC. Today, ACO USA has sales personnel across the country and an extensive distribution network through all states, the Caribbean and Central America.

ACO Sport®

ACO Sport products were first used at the 1972 Munich Olympic Stadium. They are designed to maximize the functionality of the athletic facility without disrupting the performance of athletes and players. Products are available to meet the requirements of any athletic arena from high school fields to Olympic Stadiums.





ACO Sport Systems

Full Athletic Venue Coverage

Commercial Drainage Products

System 7100

Safety Curb provides rubber topping that borders sports fields for containing loose surfacing such as sand, cinder, or clay in recreational parks and playgrounds.

System 4000

Grated channels are ideal for providing drainage around the perimeter of sports fields, courts, and bleachers.

System 2000/3000

Slotted channels provide discrete, unintrusive drainage for track and field arenas.



Stormwater Retention Systems

System 7200/7300

ACO's Modular Long Jump Pit Systems fulfill high school, college (NCAA), and international standards (IAAF).

Sand Traps prevent displaced sand from degrading surrounding track material.

Features & Benefits



Structural Strength

- Polymer concrete channels
- High compressive strength
- Resistant to thermal buckling



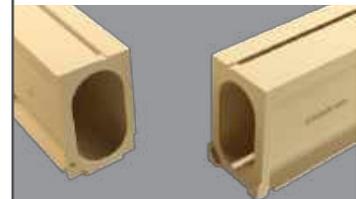
System Range

- System 2000 Slotted Channels
- System 3000 Slotted, Shallow Channels
- System 4000 Grated Channels
- System 4000 Grated Channels with Safety Edge
- System 7100 Safety Curbing
- System 7200 Sand Traps
- System 7300 Modular Long Jump Pit Systems



System 4000 Safety Edge

An optional EPDM rubber top provides a soft, safe edge along the field to help reduce injury from impact.



Interconnecting End Profiles

Allow easy and effective joining of channels. Sealant can be used to create sealed joints.



Jump Pits & Sand Traps

- Steel support grid with non-slip rubber mat
- Polymer concrete
- Metal edge rail
- Bottom outlet to prevent water build-up



Access & Inspection

- Catch basins available
- Uninterrupted, in-line design
- Removable cover
- Drill-outs for pipe connections



System 7100 Safety Curb

- Cellular EPDM rubber cap
- Polymer concrete curb
- Straight and corner sections

Slotted Track & Field Drainage

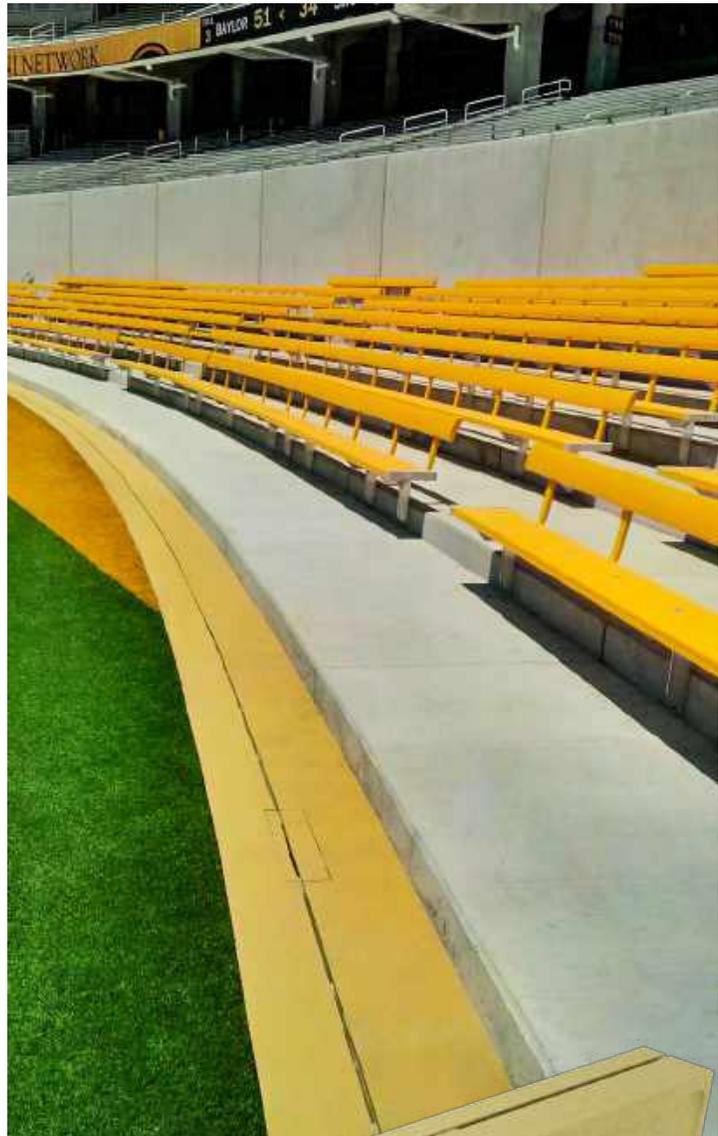
SYSTEM 2000 SLOTTED DRAINAGE

System 2000 is the premier slotted system built for running tracks in high-profile venues, including professional team sport and IAAF stadiums. The system includes straight and radiused channels with a matching in-line catch basin to provide a continuous run around the entire track. The large channel depth provides maximum hydraulic performance.

System 2000 slotted drainage channels can be seamlessly integrated with System 4000 grated channels to provide a part-slotted channel/part-grated channel drainage system.

Popular applications include but are not limited to:

- Olympic Stadiums
- College track & field
- Courts



System 2000 Channels

	Part No.	Length in (mm)	Overall Depth in (mm)	Weight lbs
<p>Straight</p>	00784	39.37 (1000)	9.80 (249)	66.0
<p>Radius</p>	00786	39.37 (1000)	9.80 (249)	66.0

Note: Depth of System 2000 channel matches that of System 4000 #4020 constant depth channel (part no. 06563).

Catch Basin

	Part No.	Length in (mm)	Overall Depth in (mm)	Weight lbs
<p>In-line Catch Basin</p>	05620	19.69 (500)	23.00 (585)	62.0
<p>Polymer Concrete Cover (fits In-line Catch Basin)</p>	00788	19.69 (500)	0.80 (20)	9.0
<p>Plastic Trash Bucket</p>	01498	17.60 (448)	-	1.1
<p>6" Oval > Round Adapter</p>	95140	-	-	1.1



SYSTEM 3000 SLOTTED DRAINAGE

High school tracks are the most common use for the economic System 3000. The channels share the benefits of System 2000 while sporting a shorter invert depth, making it ideal for applications that don't require the hydraulic capacity provided by System 2000 channels.

Popular applications include but are not limited to:

- College track & field
- High school track & field



System 3000 Channels

	Part No.	Length in (mm)	Overall Depth in (mm)	Weight lbs
<p>Straight</p>	05657	39.37 (1000)	5.70 (146)	43.0
<p>Radius</p>	05658	39.37 (1000)	5.70 (146)	43.0

Catch Basin

	Part No.	Length in (mm)	Overall Depth in (mm)	Weight lbs
<p>In-line Catch Basin</p>	05625	21.80 (552)	20.80 (528)	64.5
<p>Polymer Concrete Cover (fits In-line Catch Basin)</p>	05661	19.69 (500)	1.64 (42)	9.0
<p>Plastic Trash Bucket</p>	01498	17.60 (448)	-	1.1

Grated Track & Field Drainage



SYSTEM 4000 GRATED DRAINAGE

Fields with loose surfaces and hard-top courts that cannot be easily shaped around a drainage slot benefit from the grated open channels of System 4000. The open system allows easy access for cleaning and removal of stray surface particles.

The removable grates offer increased hydraulic water intake in comparison to System 2000 and 3000 slotted channels.

Popular applications include but are not limited to:

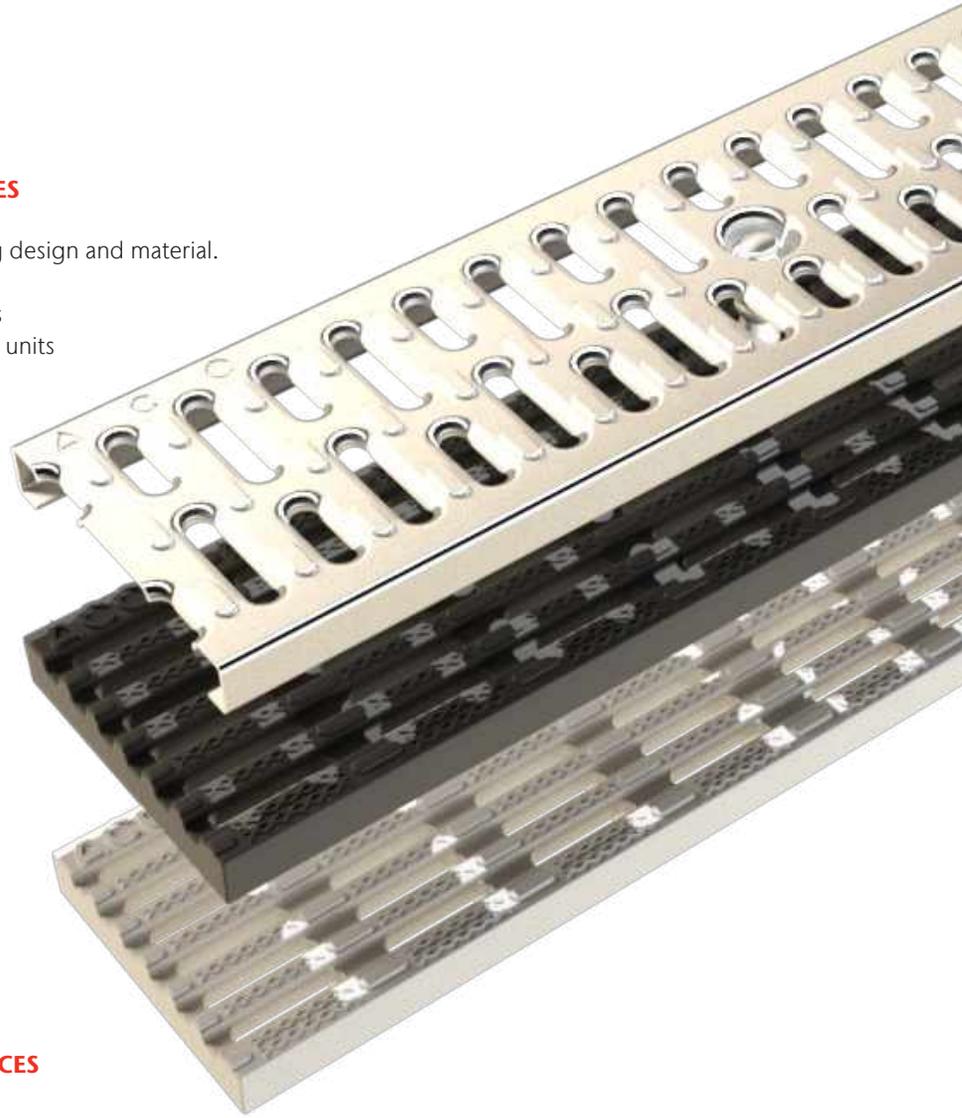
- Olympic Stadiums
- College track & field



CHOICE OF GRATES FOR MULTIPLE PURPOSES

System 4000 provides several options for grating design and material.

- Slotted Steel Grate - meter and half-meter units
- Longitudinal Plastic (Black or Gray) - half-meter units
- Heavier duty grates available if required
- ADA compliant



SAFETY EDGE AVAILABLE TO SOFTEN SURFACES

An optional, integrally cast-in cellular rubber top provides a soft, safe edge to the channel along the field to help reduce injury.



QUICKLOK® FEATURE HOLDS GRATES IN PLACE

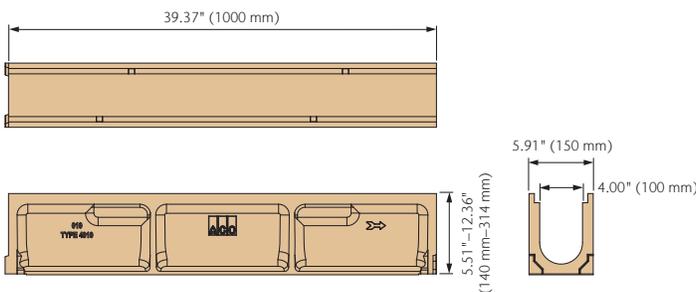
Grates are secured by a patented, push-fit, boltless locking system, providing quick installation and removal of grates.



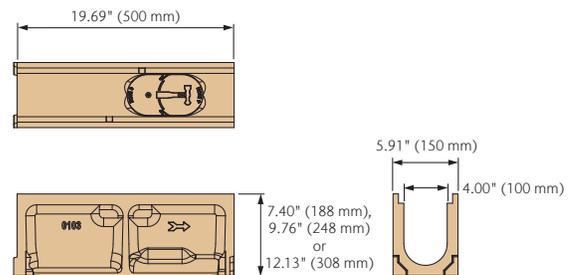
System 4000 Channels

	Part No.	Length in (mm)	Overall Depth in (mm)	Weight lbs
4000-1 Sloped Channel	138001	39.37 (1000)	5.65 (143)	32.0
4002 Constant Depth Channel	06562	39.37 (1000)	5.65 (143)	32.9
4000-2 Sloped Channel	138002	39.37 (1000)	5.88 (149)	32.9
4000-3 Sloped Channel	138003	39.37 (1000)	6.12 (155)	33.8
4000-4 Sloped Channel	138004	39.37 (1000)	6.35 (161)	34.7
4000-5 Sloped Channel	138005	39.37 (1000)	6.59 (167)	35.6
4000-6 Sloped Channel	138006	39.37 (1000)	6.83 (173)	36.5
4000-7 Sloped Channel	138007	39.37 (1000)	7.06 (179)	37.4
4000-8 Sloped Channel	138008	39.37 (1000)	7.30 (185)	38.3
4000-9 Sloped Channel	138009	39.37 (1000)	7.54 (191)	39.2
4010 Constant Depth Channel	06561	39.37 (1000)	7.54 (191)	40.1
40103 Constant Depth Channel	138033	19.69 (500)	7.54 (191)	23.0
4000-10 Sloped Channel	138010	39.37 (1000)	7.77 (197)	40.1
4000-11 Sloped Channel	138011	39.37 (1000)	8.01 (203)	41.0
4000-12 Sloped Channel	138012	39.37 (1000)	8.24 (209)	41.9
4000-13 Sloped Channel	138013	39.37 (1000)	8.48 (215)	42.8
4000-14 Sloped Channel	138014	39.37 (1000)	8.72 (221)	43.7
4000-15 Sloped Channel	138015	39.37 (1000)	8.95 (227)	44.6
4000-16 Sloped Channel	138016	39.37 (1000)	9.19 (233)	45.5
4000-17 Sloped Channel	138017	39.37 (1000)	9.43 (239)	46.4
4000-18 Sloped Channel	138018	39.37 (1000)	9.66 (245)	47.3
4000-19 Sloped Channel	138019	39.37 (1000)	9.90 (251)	48.2
4020 Constant Depth Channel	06563	39.37 (1000)	9.90 (251)	49.1
40203 Constant Depth Channel	138035	19.69 (500)	9.90 (251)	26.0
4000-20 Sloped Channel	138020	39.37 (1000)	10.13 (257)	49.1
4000-21 Sloped Channel	138021	39.37 (1000)	10.37 (263)	50.0
4000-22 Sloped Channel	138022	39.37 (1000)	10.61 (269)	50.9
4000-23 Sloped Channel	138023	39.37 (1000)	10.84 (275)	51.8
4000-24 Sloped Channel	138024	39.37 (1000)	11.08 (281)	52.7
4000-25 Sloped Channel	138025	39.37 (1000)	11.31 (287)	53.6
4000-26 Sloped Channel	138026	39.37 (1000)	11.55 (293)	54.5
4000-27 Sloped Channel	138027	39.37 (1000)	11.79 (299)	55.6
4000-28 Sloped Channel	138028	39.37 (1000)	12.02 (305)	56.5
4000-29 Sloped Channel	138029	39.37 (1000)	12.26 (311)	57.4
4030 Constant Depth Channel	138036	39.37 (1000)	12.13 (308)	58.0
4000-30 Sloped Channel	138030	39.37 (1000)	12.50 (317)	59.2

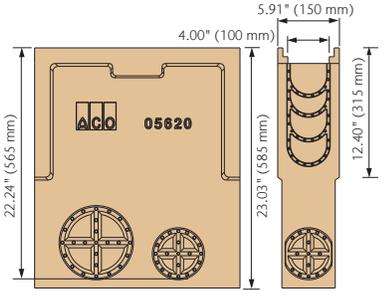
Meter Channel



Half-Meter Channel



Catch Basin

	Part No.	Length in (mm)	Overall Depth in (mm)	Weight lbs
In-line Catch Basin				
	05620	19.69 (500)	23.00 (585)	62.0
Catch Basin QuickLok Bar	98717	-	-	0.3
Plastic Trash Bucket	01498	-	-	1.1
6" Oval > Round Adapter	95140	-	-	1.1

Accessories

Closing End Cap	137090	-	12.50 (311)	4.5
104-4 Inlet Cap - 4"	137091	-	7.54 (191)	2.6
204-4 Inlet Cap - 4"	137093	-	9.90 (251)	3.7
204-6 Inlet Cap - 6"	137099	-	9.90 (251)	3.3
108-4 Outlet Cap - 4"	137092	-	7.77 (197)	2.0
208-4 Outlet Cap - 4"	137094	-	10.13 (257)	2.6
208-6 Outlet Cap - 6"	137095	-	10.13 (257)	2.6
308-4 Outlet Cap - 4"	137097	-	12.50 (317)	3.3
308-6 Outlet Cap - 6"	137098	-	12.50 (317)	3.3

Grates

Slotted Steel - 1 m	31530	39.37 (1000)	-	5.9
Slotted Steel - 0.5 m	31531	19.69 (500)	-	3.0
Black Longitudinal Plastic - 0.5 m	97393	19.69 (500)	-	1.8
Gray Longitudinal Plastic - 0.5 m	97385	19.69 (500)	-	1.8
QuickLok Bar	02899	-	-	0.1
Grate Removal Tool	01318	-	-	0.3



Safety Edge System

SE4020 Constant Depth Channel	06566	39.37 (1000)	9.90 (251)	49.1
In-line Catch Basin	06567	19.69 (500)	23.00 (585)	62.0

Jump Pit Systems



SYSTEM 7100 SAFETY CURB

System 7100 Safety Curbs create secure borders around playing fields and loose-surface areas. The black rubber cap provides a soft, smooth, even surfacing to avoid tripping and to minimize injury from falls.

- Synthetic turf fields
- Jump pits
- Playgrounds



SYSTEM 7200 SAND TRAPS

System 7200 Sand Trap units catch splashing sand, reducing abrasion damage to the surrounding surfaces.

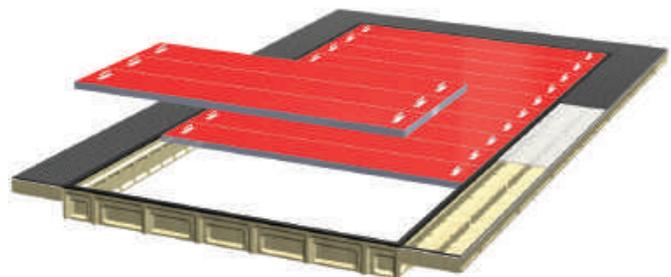
- Jump pits



SYSTEM 7300 MODULAR JUMP PITS

System 7300 Modular Jump Pit Systems provide an easy solution for the three most common jump pit sizes. Aluminum covers and optional sand traps are available.

- Olympic Stadiums
- College track & field



System 7100 Safety Curb

	Part No.	Length in (mm)	Overall Depth in (mm)	Weight lbs
Straight Safety Curb	00960	39.37 (1000)	9.80 (249)	31.8
Safety Curb Corner Piece	01041	11.8 (300)	9.80 (249)	17.0

System 7200 Sand Trap

	Part No.	Length in (mm)	Overall Depth in (mm)	Weight lbs
Sand Trap	02739	39.37 (1000)	5.7 (145)	72.8
Metal grate & rubber mat	01453	39.37 (1000)	1.9 (48)	32.0
End cap	02740	19.69 (500)	6.8 (200)	12.0

System 7310 High School Jump Pits

	Part No.	Internal Size (m x m)	Weight lbs
OPTION A: FLUSH END			
Jump Pit System (curbs, sand traps & covers) Flush End - Black	91021	3 x 6.5	3998.0
OPTION B: WRAP-AROUND			
Jump Pit System (curbs, sand traps & covers) Wrap-Around - Black	91008	3 x 6.5	4318.0
OPTION C: CURB & COVER			
Jump Pit System (curbs, & covers) - Black	91023	3 x 6.5	2215.0

System 7320 College (NCAA) Jump Pits

OPTION A: FLUSH END			
Jump Pit System (curbs, sand traps & covers) Flush End - Black	91032	3 x 7.5	4433.0
OPTION B: WRAP-AROUND			
Jump Pit System (curbs, sand traps & covers) Wrap-Around - Black	91045	3 x 7.5	4791.0
OPTION C: CURB & COVER			
Jump Pit System (curbs, & covers) - Black	91027	3 x 7.5	2475.0

System 7330 International (IAAF) Jump Pits

OPTION A: FLUSH END			
Jump Pit System (curbs, sand traps & covers) Flush End - Black	91017	3 x 8.5	4906.0
OPTION B: WRAP-AROUND			
Jump Pit System (curbs, sand traps & covers) Wrap-Around - Black	91028	3 x 8.5	5264.0
OPTION C: CURB & COVER			
Jump Pit System (curbs, & covers) - Black	91036	3 x 8.5	2735.0

System 7300 Accessories

Jump Pit System Assembly Kit	91046	-	48.5
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Technical Support & Services

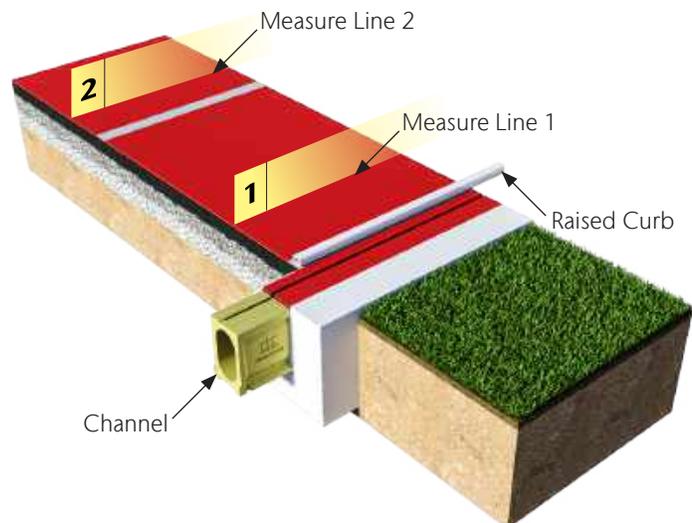
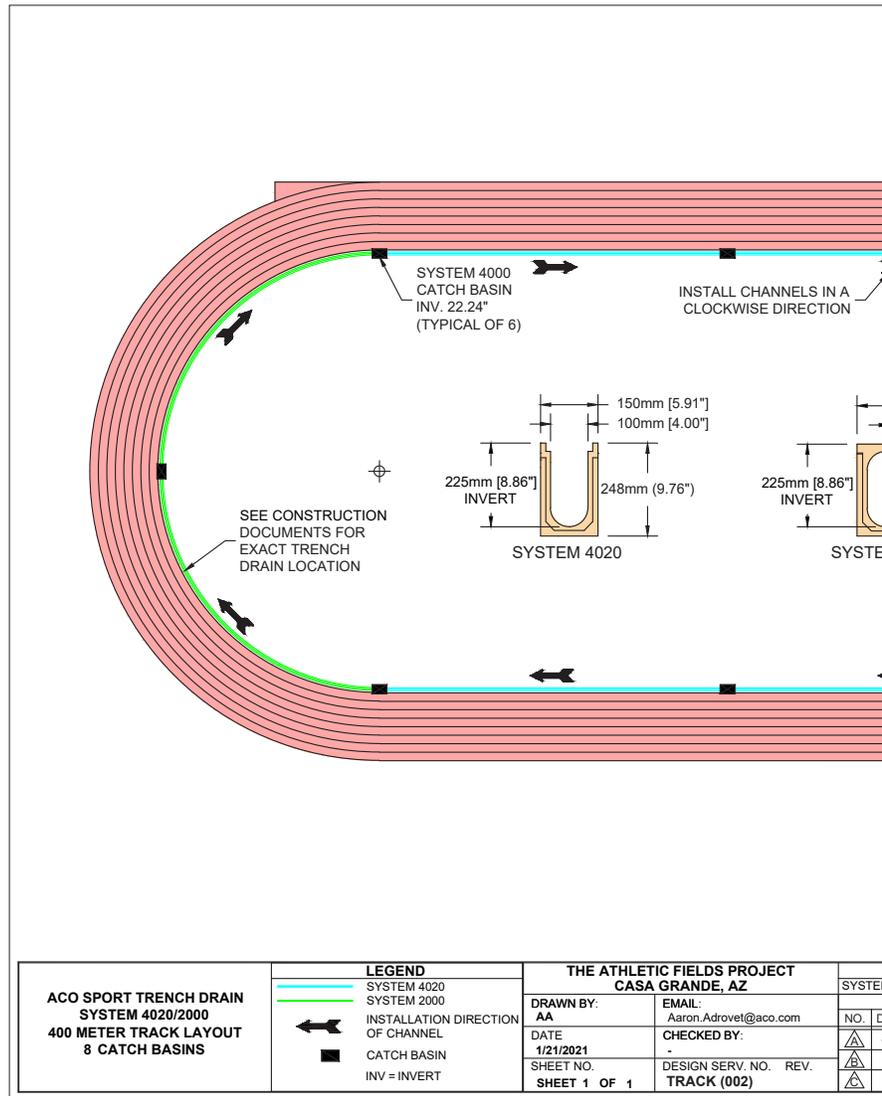
ACO Sport products are the primary choice of sport facility designers. A key reason for this is the professional level support and assistance available, both at the design and installation stages.

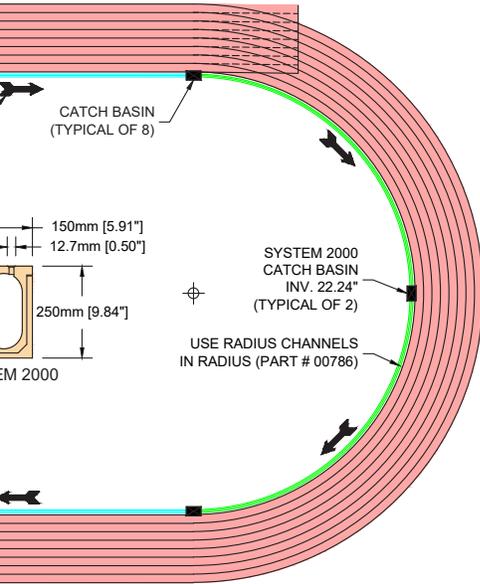


TECHNICAL SUPPORT

ACO offers the following support and advice:

- Running Track Drainage Layout & Bill of Materials** - A complete take-off showing position of straight and radius channels complete with catch basin locations. This service will deal with all track configurations and provide a bill of materials.
- Installation Details** - All ACO Sport products are supported by DWG and PDF installation drawings and specification clauses.
- Hydraulic Calculations** - Using ACO Drain's proven software services, ACO can supply sizing information for drain systems to cope with drainage requirements relative to the catchment of the track and field.





- GENERAL NOTES**
- IT IS THE CUSTOMERS RESPONSIBILITY TO FOLLOW ACO, INC. INSTALLATION INSTRUCTIONS FOR EACH PRODUCT. SEEK ENGINEERING ADVICE FOR INSTALLATIONS NOT ILLUSTRATED IN THE INSTALLATION GUIDELINES.
 - ACO IS NOT RESPONSIBLE TO ENSURE PROPER FLOW TO SYSTEMS OUTLETS OR CATCH BASINS, REFER TO GRADING PLANS. ALL TRENCH DRAIN LAYOUTS ARE DESIGNED AT 0.0% LONGITUDINAL PAVEMENT SLOPE UNLESS OTHERWISE NOTED.
 - THIS TRENCH DRAIN LAYOUT DRAWING IS ONLY INTENDED TO BE USED AS A GUIDELINE. REFERENCE CONSTRUCTION DOCUMENTS FOR FURTHER INFORMATION.

- TRENCH NOTES**
- ALL FABRICATIONS TO BE COMPLETED BY INSTALLING CONTRACTOR.
 - INSTALLING CONTRACTOR TO VERIFY ENTIRE SCOPE OF TRENCH DRAIN HAS BEEN PROVIDED FOR THIS PROJECT BY ACO, INC.

MATERIAL LIST
SYSTEM 4020 W/6 CATCH BASINS

PART #	DESCRIPTION	QTY
06563	SYSTEM 4020	200
05620	SYSTEM 4000 CATCH BASIN	6
98717	REMOVABLE QUICKLOK BAR	6
01498	PLASTIC TRASH BUCKET	6
97393	494Q BLACK PL ADA GRATE	406
02899	QUICKLOK LOCKING BAR	400

MATERIAL LIST
SYSTEM 2000 W/2 CATCH BASINS

PART #	DESCRIPTION	QTY
00786	SYSTEM 2000 RADIUSED	200
05620	SYSTEM 2000 CATCH BASIN	2
00788	POLYMER CONCRETE COVER	2
01498	PLASTIC TRASH BUCKET	2

TRENCH DRAIN LAYOUT
M(S) SPORT 4020/2000 GRATE(S) 494Q/SLOT

DESCRIPTION	REVISIONS	DATE	BY

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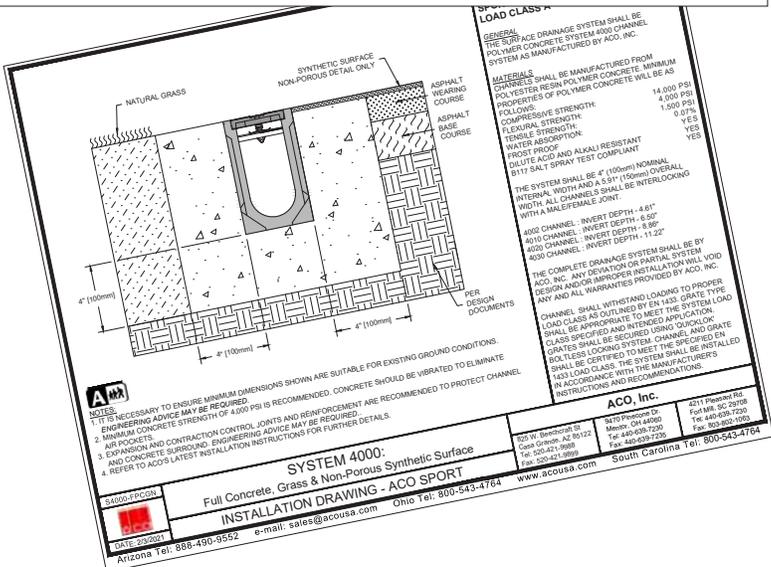
www.acousa.com



SERVICE

ACO understands that every track, field or other sporting arena is different and can assist in the surface drainage design ensuring that both hydraulic and layout requirements are met. Advice and assistance is available from initial design through installation and maintenance.

askACO
www.askaco.us



ACO products support the ACO System Chain



Surface Water Management

- ACO Drain - Commercial Trench Drains
- ACO Infrastructure - Heavy Duty Drainage
- ACO Sport - Athletic Venue Drainage
- ACO StormBrixx - Geocellular Tanks
- ACO Aquaduct - Custom Drainage
- ACO Environment - Solid & Oil Separators
- ACO Wildlife - Guidance & Passage
- ACO Self - Garden & Landscape Drainage
- ACO UtilityDuct - Linear Ducting System

Building Drainage

- ACO Stainless - Stainless Trench Drains
- ACO BoxDrain - Stainless Floor Troughs
- ACO FloorDrain - Stainless Point Drains
- ACO Pipe - Stainless Push-fit Piping
- ACO ShowerDrain - Bathroom Drainage

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All reasonable care has been taken in compiling the information in this document. All recommendations and suggestions on the use of ACO products are made without guarantee since the conditions of use are beyond the control of the company. It is the customer's responsibility to ensure that each product is fit for its intended purpose and that the actual conditions of use are suitable. ACO, Inc. reserves the right to change products and specifications without notice.

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the future of drainage

