

# ACO ShowerDrain

Premium ShowerChannel & ShowerPoint

Installation Guide

*Premium*



## Technical & Planning Considerations

### ACCUMULATION AND SLOPES

ASME A112.6.3-2001 requires a 2" outlet for shower applications. ACO ShowerDrain Premium channels have this as a standard. The flow value for a 2" outlet varies depending upon the water accumulation above the grating.

In the case of shower channels, accumulation is not typical in practice, due to shallower floor grades. Floor drains can have accumulation due to a basin profile of floor grades.

Flow values without any accumulation should be used when shower channels are placed around the perimeter of the shower and no shower threshold step is used.

If the shower channel is installed against a wall, there may be a small amount of accumulation depending on the layout of the shower area. Grade of shower floor will determine depth of build-up.

### OUTFLOW PERFORMANCE

The choice of shower channel generally depends on the flow values of the shower fitting. 70% of shower heads have a maximum capacity of less than 3 GPM.

The ACO ShowerDrain Premium standard channel with no grate has an outflow of 6.65 GPM. This value assumes no accumulation above drain.

Based upon these flow rates, the ACO ShowerDrain Premium standard channel can be used in conjunction with the majority of shower head fittings.

A number of custom solutions are available to compensate for shower heads with higher flow rates.

	Accumulation in Shower Outlet Flow Rates (GPM)		
	0.00" (0 mm)	0.20" (5 mm)	0.60" (15 mm)
Tile-In	6.49	9.28	11.32
Quadrato	6.34	9.07	11.06
Flag	6.34	9.07	11.06
Wave	6.00	8.58	10.47
Channel Body Only	6.65	9.51	11.60

*Note: Based on 900 mm shower drain with standard 2" outlet. The addition of a grate will throttle the intake of water into the channel body and slow the flow of water to the outlet.*



#### Installation against the wall

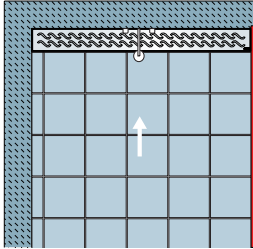
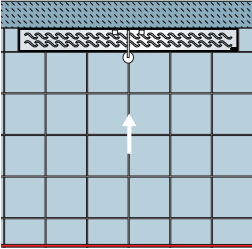
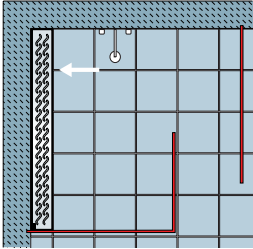
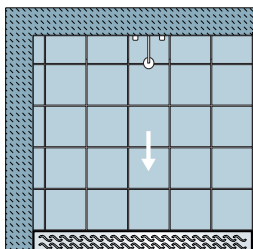
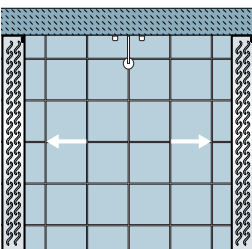
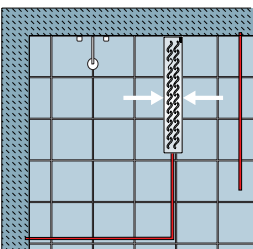
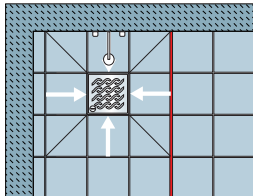
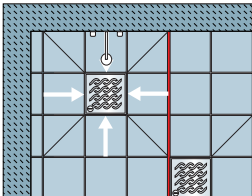
Outlet flow rate up to 9.51 GPM based on floor grades such that 0.2" (5 mm) accumulation possible.



#### Installation at the entrance

Outlet flow rate up to 6.65 GPM based on no accumulation.

## Drainage Planning Information

Installation against the wall	Walk-through: installation against the wall	Walk-in: installation against the wall
		
<ul style="list-style-type: none"> <li>■ Slope in one direction</li> <li>■ Slope away from bathroom</li> <li>■ No risk of bypass</li> <li>■ CPE flexible membrane recommended</li> </ul>	<ul style="list-style-type: none"> <li>■ Slope in one direction</li> <li>■ Shower area or whole bathroom floor can be sloped towards channel</li> <li>■ CPE flexible membrane recommended</li> </ul>	<ul style="list-style-type: none"> <li>■ Slope in one direction</li> <li>■ Slope away from bathroom</li> <li>■ No risk of overshooting water</li> <li>■ CPE flexible membrane recommended</li> </ul>
Installation at shower entrance	Walk-through: installation with two channels	Walk-in: installation at the entrance
		
<ul style="list-style-type: none"> <li>■ Slope in one direction, away from the shower area</li> <li>■ Possible risk of bypass; sloping the bathroom floor towards the shower area is recommended to prevent bypass</li> <li>■ Channel length should fit the shower opening</li> </ul>	<ul style="list-style-type: none"> <li>■ Two-directional slope towards the bathroom area</li> <li>■ Channel length should fit the shower opening</li> </ul>	<ul style="list-style-type: none"> <li>■ Two-directional slope towards the channel</li> <li>■ Channel length should fit the shower opening</li> </ul>
Point installation at shower center	Installation with multiple point drains	
		
<ul style="list-style-type: none"> <li>■ Use single ShowerPoint drain within shower area</li> <li>■ Floors must be graded up to 2% or other barriers must be used to prevent flow of water into bathroom area</li> </ul>	<ul style="list-style-type: none"> <li>■ With multiple ShowerPoint drains positioned within both shower and bathroom areas, level threshold floors can be used as ShowerPoint will also drain any liquid from cleaning or other bathroom fixtures</li> </ul>	

## Installation Overview: ShowerChannel

ACO offers a number of options to ensure compatibility with different floor structures.

These installation details provide the designer with the preparation, construction and installation instruction necessary to install waterproof channels and floor drains.

Although these details do not cover every possible situation, they do provide a practical reference to most design applications.

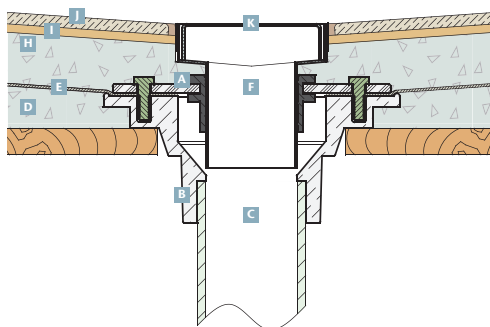
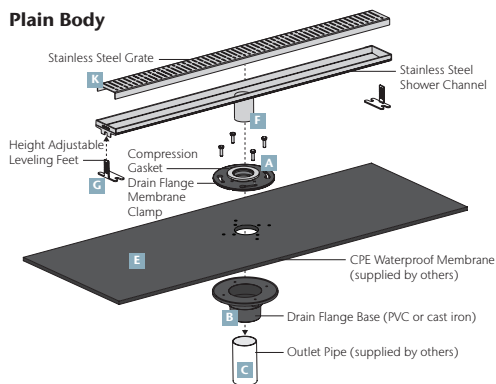
Tiled showers require a waterproofing membrane beneath the tiles and grout.

Always consult local codes prior to installation.

### PLAIN BODY INSTALLATION GUIDE

1. If alterations to floor joists are necessary, alter and reinforce the floor joists as advised by a Structural Engineer.
2. Frame out shower surround as required.
3. Remove the drain flange membrane clamp and compression gasket (**A**) from the drain flange base (**B**). Connect the drain flange base to the outlet pipe (**C**) with the bolts in place. Block the drain opening with a rag to prevent mortar from blocking pipework.
4. Trowel mortar (**D**) onto the subfloor.
5. Install the membrane (**E**). Reinforce the membrane around the outlet pipe and carefully cut openings to reveal the outlet pipe and the bolt heads.
6. Remove the rag. Install the drain flange membrane clamp and compression gasket.
7. Test the membrane for leaks.
8. Lubricate the shower channel outlet spigot (**F**) with liquid soap. Push-fit the shower channel through the compression gasket into the outlet pipe until the correct position and height are met.
9. Cut and install leveling feet (**G**) into the shower channel to rest on the membrane and keep the shower channel level at the correct height.
10. Trowel mortar to the correct height (**H**), allowing for the tile and thinset mortar to create a 2% slope towards the shower channel.
11. After mortar has cured, apply thinset mortar (**I**).
12. Install the tile and grout (**J**).
13. Install the grate into the shower channel (**K**).

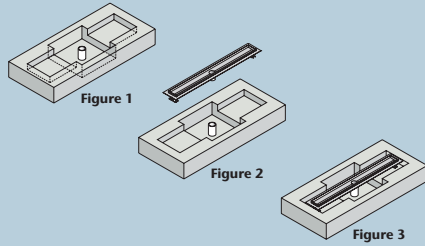
#### Plain Body



## FLANGE BODY INSTALLATION GUIDE

### Box Method

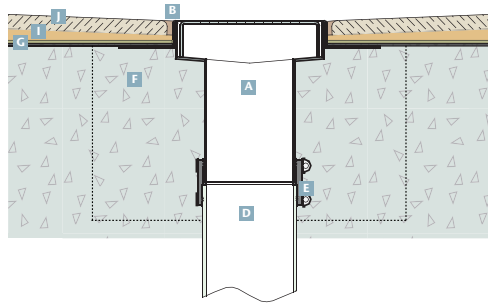
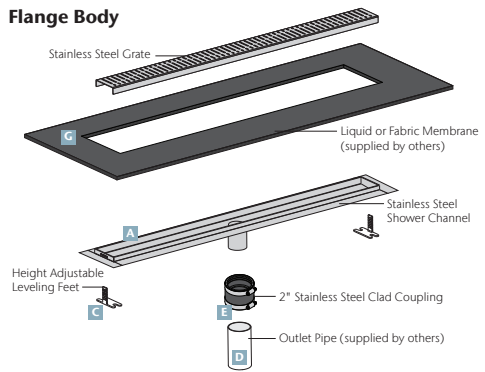
1. Box out detail showing suggested dimensions (**Figure 1**).
2. After removing box formwork connect shower channel to plumbing pipework (**Figure 2**).
3. Shower channel fitted in place prior to final concrete slurry pour. Shower channel flange should be at same level as original concrete slab (**Figure 3**).



### Frame Method

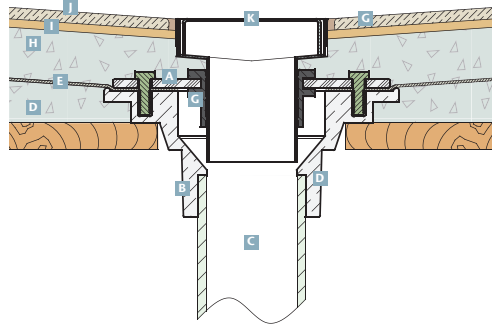
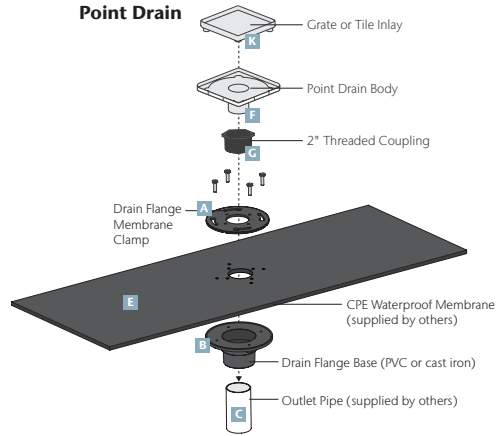
1. Frame out shower surround as required.
2. Set the top edge of the shower channel (**A**) slightly below finished tile level (**B**).
3. Cut and install leveling feet (**C**) to keep the shower channel level at the correct height.
4. Connect the shower channel outlet spigot to the outlet pipe (**D**) using a clad coupling (**E**).
5. Pour concrete slurry (**F**) into the framed-out void to the height of the shower channel's flange. Allow concrete to dry.
6. Install hot-mop/liquid/fabric membrane (**G**), fully covering the concrete and the shower channel flange in accordance with the manufacturer's instructions.
7. Trowel mortar to the correct height (**H**), allowing for the tile and thinset mortar to create an ~1% slope towards the shower channel.
8. After mortar has cured, apply thinset mortar (**I**).
9. Install the tile and grout (**J**).
10. Install the grate into the shower channel (**K**).

### Flange Body



## POINT DRAIN INSTALLATION GUIDE

1. If alterations to floor joists are necessary, alter and reinforce the floor joists as advised by a Structural Engineer.
2. Frame out shower surround as required.
3. Remove the drain flange membrane clamp (**A**) from the drain flange base (**B**). Connect the drain flange base to the outlet pipe (**C**) with the bolts in place. Block the drain opening with a rag to prevent floor mortar from blocking pipework.
4. Trowel mortar (**D**) onto the subfloor.
5. Install the membrane (**E**). Reinforce the membrane around the outlet pipe and carefully cut openings to reveal the outlet pipe and the bolt heads.
6. Remove the rag. Install the drain flange membrane clamp and threaded coupling.
7. Test the membrane for leaks.
8. Lubricate the point drain body outlet spigot (**F**) with liquid soap. Push-fit the point drain body through the threaded coupling (**G**) into the outlet pipe until the correct position and height are met.
9. Trowel mortar to the correct height (**H**), allowing for the tile and thinset mortar to create a 2% slope towards the shower channel.
10. After mortar has cured, apply thinset mortar (**I**).
11. Install the tile and grout (**J**).
12. Install the grate/tile inlay into the point drain body (**K**).



## Product Cleaning Instructions

### DO USE:

- A solution made from mild soap or dish detergent & warm water
- A soft, clean cotton cloth
- Clean water to rinse then wipe dry

### DO NOT USE:

- Cleaning agents containing chlorides, alcohol, ammonia, alkaline or mineral spirits
- Steel wool or wire brushes
- Abrasive cleaners





ACO products support the ACO System Chain



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## 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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## ACO, Inc.

West Sales Office  
825 W. Beechcraft Street  
Casa Grande, AZ 85122  
Tel: (520) 421-9988  
Toll Free: (888) 490-9552  
Fax: (520) 421-9899

Northeast Sales Office  
9470 Pinecone Drive  
Mentor, OH 44060  
Tel: (440) 639-7230  
Toll free: (800) 543-4764  
Fax: (440) 639-7235

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

[info@acousa.com](mailto:info@acousa.com)  
[www.acousa.com](http://www.acousa.com)

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