INSTALLATION GUIDE

StreamLine™ Linear Drain

>> With Full Mortar Bed Adapter Kit



Supply Drainage Support

StreamLine™ Linear Drain

>> With Full Mortar Bed Adapter Kit

When using Full Mortar Bed Adapter Kit, discard installation instructions included with StreamLine drain and refer to these instructions. Carefully review all installation options and instructions before proceeding.

823-FK24, 823-FK32, 823-FK40, 823-FK60

Full Mortar Bed Adapter Kit Hardware and Materials included:



Bracket Screw #8 1/2" Phillips Pan

Head Screws



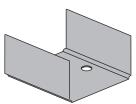
Strainer to Base Screw #6 2-1/4" Phillips Pan Head Screws.

Note: Replaces Strainer to Base Screws from StreamLine Linear Drain



Strainer Height Adjustment Screw #10 2-1/2" Phillips Flat Head Screws.

Note: Replaces Strainer Height Adjustment Screws from StreamLine Linear Drain



Brackets



Foam Block



Mortar Guard



Shower Pan Liner¹

Square footage amount ordered separately based on shower size. Must comply with state and local codes.



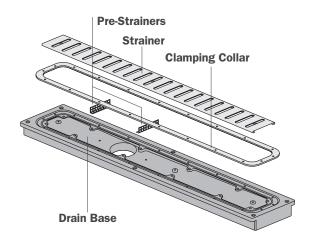
Outside Corner

Select outside corner material to match Shower Pan Liner material, PVC or CPE.

Shower pan liner and preformed corners ordered/purchased separately

823 SERIES

StreamLine Linear Drain includes*:





Pre-Strainer Screw #8 1/2" Phillips Pan

Head Screws



Strainer to Base **Screw**

#6 1" Phillips Pan Head Screws.

Note: Will not be used with Full Mortar Bed Kit.



Base to Sub-Floor. **Concrete Anchor**

Note: Will not be used with Full Mortar Bed Kit.

Clamping Collar Screw

#6 5/8" Phillips Flat

Strainer Height

Adjustment Screw #10 1-1/4" Phillips Flat

Head Screws

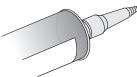
Head Screws.

1" Long, 1/4" Hole





NobleSeal® Flashing1



NobleSealant 150

1 Shower pan liner (not included) will be used to waterproof shower. The NobleSeal flashing included with the drain will not be needed.

^{*}StreamLine Linear Drain is purchased separately from the Full Mortar Bed Adapter Kit.

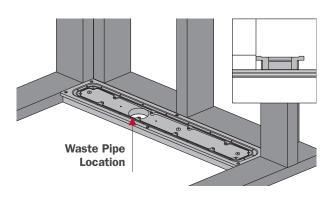
Pre-Planning

Be certain to gather all required tools and materials required prior to installation.

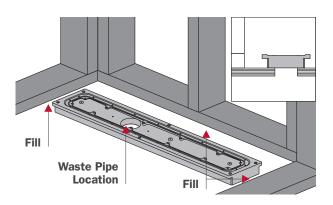
Sub Floor Caution: Sub floor must meet local code requirements and Tile Council of North America (TCNA) guidelines. Clean sub floor to be sure it is smooth and level.

Pre-Sloped and Full Mortar Bed Requirements

Follow manufacturers instructions. Use products recommended for the type of sloped bed being installed. StreamLine Linear Drain assembly is intended to install tight to toe plate and studs within shower PRIOR to installation of mortar bed, backer board, waterproofing and tile.



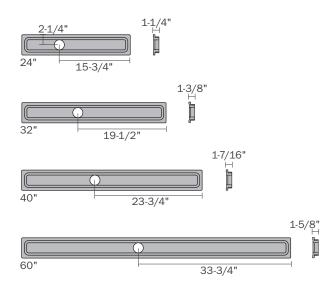
If StreamLine Linear Drain assembly is installed inside toe plates within shower, add a properly sloped mortar bed to fill the space between the toe plates and the drain base.



Drain Sizes

Confirm Drain Size, Waste Pipe Type and Waste Pipe Location

Drain hole is off-set to accomodate floor joist location. Size of shower determines size of drain to be used, which determines location of waste pipe through sub-floor. Match 2" I.D Schedule 40 pipetype (PVC or ABS) to drain base type.



Typical Drain Locations



Drain at Back WallFlush to back
wall. Layout 1



Drain at Full Curb EntryFlush to curb.
Layout 2



Drain at
Partial Width
Curb
Flush to curb.
Layout 3



Drain at Curb-less EntryFlush to both side walls.
Layout 4

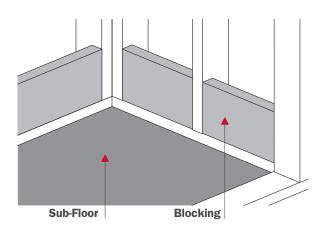


Drain On CenterFlush to both side walls.
Layout 5

1. Wall Preparation

Blocking

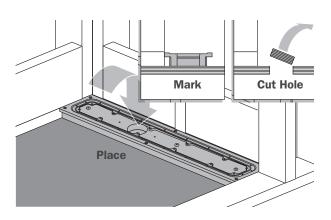
Blocking between studs may be needed for Shower Pan Liner attachment prior to drain installation.



3. Waste Pipe

Option A: Waste Pipe Not Installed. Place, Mark and Cut

Place drain base in desired location on sub floor. Mark waste pipe location on sub-floor. Cut opening in sub-floor to access plumbing below.

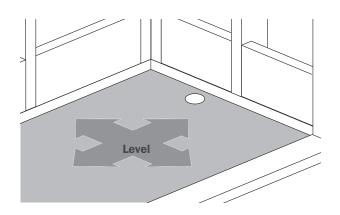


2. Sub-Floor Preparation

Caution: Confirm that sub-floor meets all local code requirements and the Tile Council of North America's (TCNA) guidelines.

Check for Level. Clean

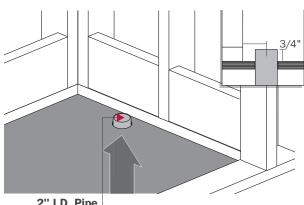
Sub-floor must be smooth and level. Clean sub-floor.



Install Waste Pipe

Follow local plumbing codes to properly install and secure 2" I.D. waste pipe 3/4" above sub-floor.

Note: Waste pipe may be installed after fastening drain base if accessible from be low.

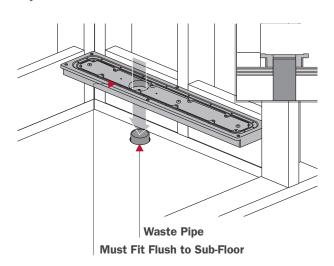


2" I.D. Pipe

Option B: Waste Pipe Pre-Installed

Dry fit drain base over location of existing waste pipe. If location does not allow drain base to fit flush against at least 2 shower walls, move location of plumbing to allow for proper installation. May also require moving existing studs and toe plate.

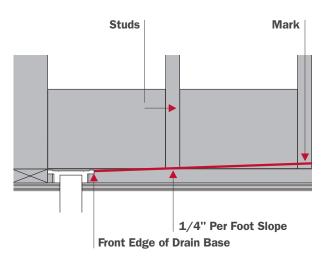
Dry Fit



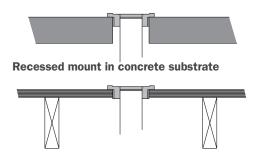
4. Preparation for Pre-Sloped Bed

Mark Bed Slope

1/4" per foot slope to drain is required.



Alternate Drain Mounting Methods



Recessed mount in wood sub-floor

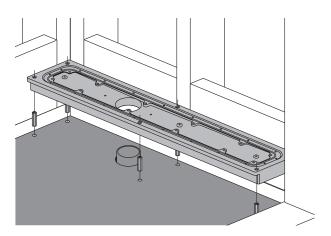
 $\textbf{Note:} \ \ \textbf{Any modification of substrate must comply with local building codes.}$

5. Fasten Drain Base to Sub-Floor

For Concrete Sub-Floor A & B For Wood Sub-Floor B only

A. Mark for Anchors

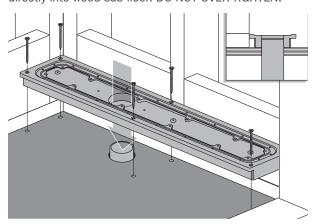
Dry fit drain base over waste pipe. Mark all holes in outside flange of drain base on concrete floor. Remove drain base. Drill 1/4" holes, 1-1/2" deep where marked. Drive plastic anchors flush in all holes.



B. Install Drain Base to Waste Pipe and Sub-Floor

Caution: Confirm proper plastic pipe primer and cement for drain base type (PVC or ABS). Check drain base label to confirm.

Apply appropriate plastic pipe primer and cement to drain and waste pipe following local plumbing codes and manufacturers instructions. Fit and fully seat drain base onto waste pipe. Fasten drain base to sub-floor by screwing 2-1/2" deck screws through all holes in outside flange of drain base into plastic anchors or directly into wood sub-floor. DO NOT OVER-TIGHTEN.



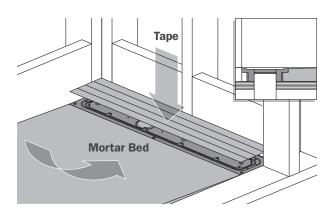
6. Sloped Mortar Bed Installation

Protect Drain Base.

Apply tape over entire top surface of drain base.

Install Sloped Bed.

Follow industry standards to complete sloped mortar bed installation. Be certain mortar completely fills void below drain base flange. Allow to dry before proceeding.



7. Prepare Shower Pan Liner



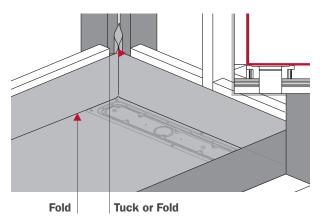
Option 1:

For Drain at Back Wall

Shower Pan Liner must turn up the walls a minimum of 3" above finished shower curb and 6" above floor in showers without curbs.

Measure width of shower floor across drain base. Lay Shower Pan Liner flat. Measure and mark Shower Pan Liner. Fold and crease for upturns and create corners.

Note: Do not secure Shower Pan Liner at this time.



See "Making Corners" on pg 8 for more information



Option 2:

For Drain at Full Curb Entry

Shower Pan Liner must turn up the walls a minimum of 3" above finished shower curb and 6" above floor in showers without curbs.

Prior to installing Shower Pan Liner, install pre-formed outside corners (available separately) following manufacturer's instructions. Two corners per side.

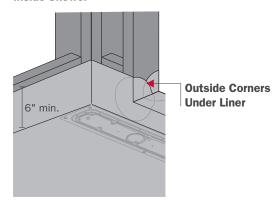
Measure width of shower floor across drain base. Measure up and over curb. Lay Shower Pan Liner flat. Measure and mark Shower Pan Liner.

Cut, fold and crease to proper size and fit.

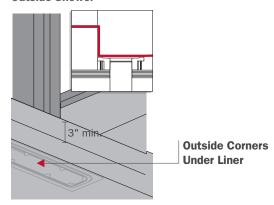
Note: Do not secure Shower Pan Liner at this time.

Note: Preformed curbs may also be used. See manufacturer's instructions.

Inside Shower



Outside Shower



7. Prepare Shower Pan Liner (cont.)



Option 3:

For Drain at Partial Width Curb

Shower Pan Liner must turn up the walls a minimum of 3" above finished shower curb and 6" above floor in showers without curbs.

Prior to installing Shower Pan Liner, install pre-formed outside corners (available separately) following manufacturer's instructions. 2 per side.

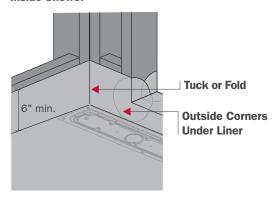
Measure width of shower floor across drain base. Measure up and over curb. Lay Shower Pan Liner flat. Measure and mark Shower Pan Liner.

Cut, fold and crease to proper size and fit.

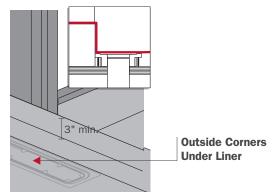
Note: Do not secure Shower Pan Liner at this time.

Note: Preformed curbs may also be used. See manufacturer's instructions.

Inside Shower

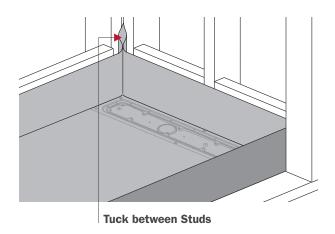


Outside Shower



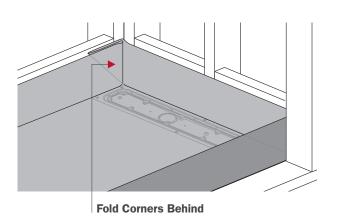
Making Corners

Tucked Corner (when space is available between studs)Fold and crease to size. Tuck Shower Pan Liner into space between studs.



Folded Corner

Fold and crease to size. Fold corners behind shower pan liner.



7. Prepare Shower Pan Liner (cont.)

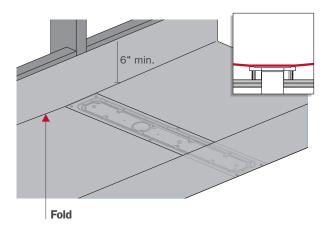


Shower Pan Liner must turn up the walls a minimum of 3" above finished shower curb and 6" above floor in showers without curbs.

Measure width of shower floor across drain base. Lay Shower Pan Liner flat. Measure and mark Shower Pan Liner.

Fold and crease for upturns.

Note: Do not secure Shower Pan Liner at this time. Preformed curbs may also be used. See manufacturer's instructions.

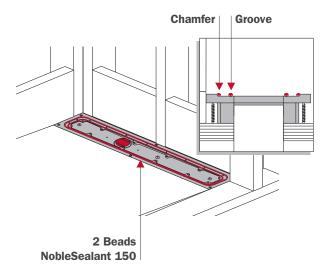


8. Secure Shower Pan Liner

A. Seal Drain Base

Lift out Shower Pan Liner. Remove tape, leaving tape over drain hole only.

Apply a 1/8" continuous bead of NobleSealant 150 around chamfer on base flange and another bead in groove on drain base.

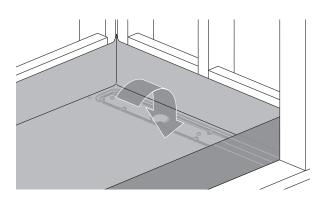


B. Pre-Formed Corners

Apply NobleSealant 150 to any pre-formed corners.

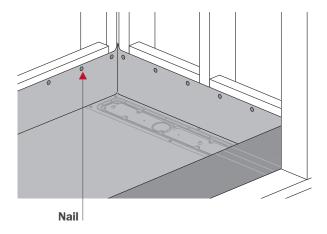
C. Press Shower Pan Liner Into Sealant

Align Shower Pan Liner, fit or re-tuck corners and firmly press Liner into sealant on drain base and any pre-formed corners.



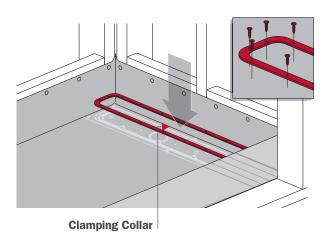
9. Fasten Shower Pan Liner

Nail through top 1" of Shower Pan Liner to studs and/or blocking.



10. Install Clamping Collar

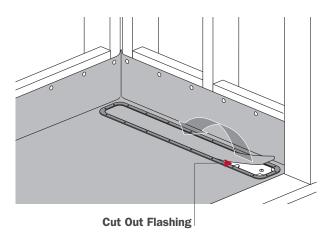
Align collar with drain base under Shower Pan Liner. Press firmly. Starting at one end, insert 5/8" screw through collar, punch through Shower Pan Liner and screw into base. Repeat for all screws. DO NOT OVER-TIGHTEN.



11. Cut Out Flashing

With a razor knife, carefully trim out Shower Pan Liner from center of collar. Remove tape from drain hole.

Caution: Do not puncture Shower Pan Liner outside of collar.



12. Flood Test

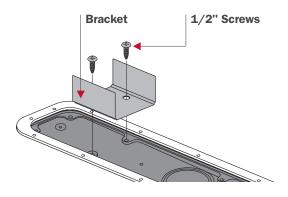
Flood test as required by local codes.

13. Drain

Drain and dry after successful flood test.

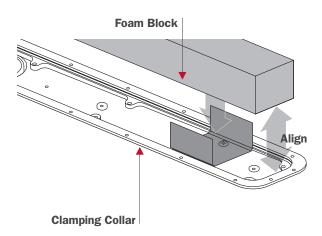
14. Install Brackets

Align holes in Bracket with second set of holes in from end of drain base. Attach using two 1/2" screws. Repeat for opposite end of drain base. DO NOT OVER-TIGHTEN SCREWS.



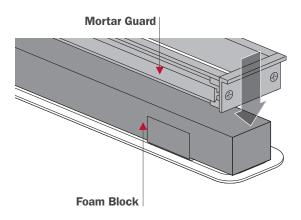
15. Install Foam Block

Lay Foam Block in brackets and align ends of foam with inside edge of Clamping Collar.



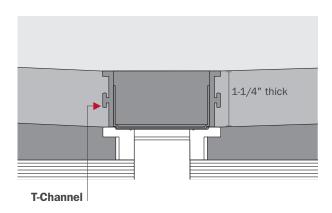
16. Install Mortar Guard

Install Mortar Guard over Foam Block and Brackets. Center end to end over Clamping Collar. Fully seat Mortar Guard to Clamping Collar on Drain Base.



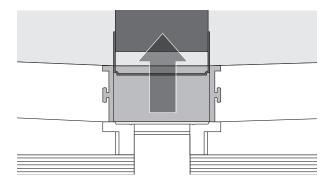
17. Install Mortar Bed

Follow industry standards to install mortar bed flush to top of Mortar Guard 1-1/4" thick. Pack mortar into top and bottom of T-Channels to lock Mortar Guard in place. Be certain to maintain uniform thickness within entire bed. Allow to dry before proceeding.



18. Remove Foam Block and Brackets

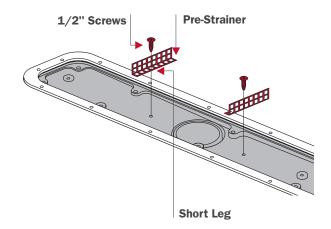
Carefully remove Foam Block. Remove Bracket Screws and Brackets.



20. Install Pre-Strainers

Place short leg of Pre-Strainer down, facing drain hole. Install 1/2" pan head screw, align strainer and tighten screw. Repeat for opposite strainer.

Note: On 24" drain, place long leg of Pre-Strainer down, facing drain hole.



19. Install Backer Board and Wall Waterproofing

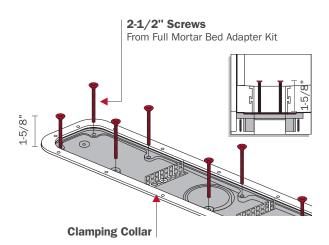
Note: Plumbing codes and TCNA guidelines state that shower walls must be sealed with a vapor barrier or waterproofing membrane.

Install 1/2" backer board and wall waterproofing according to manufacturer's instructions.

Caution: Do not puncture Liner.

21. Install Height Adjustment Screws

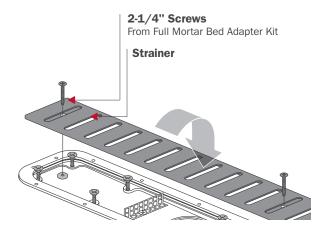
Screw in all 2-1/2" flat head height adjustment screws to approximately 1-5/8" above the clamping collar.



22. Temporarily Attach Strainer

Note: Strainer attachment holes are not symmetrical. If screws do not align with holes in drain base, turn strainer end-to-end.

Place strainer over height adjustment screws. Temporarily fasten with three 2-1/4" pan head screws. DO NOT OVER-TIGHTEN.

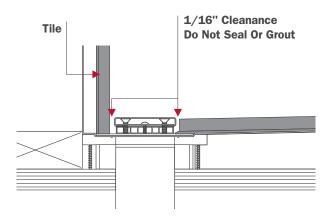


23. Tile and Grout

Be certain strainer is protected with tape. Allow for 1/16" clearance between strainer and tile.

Caution: Do not grout or seal this space.

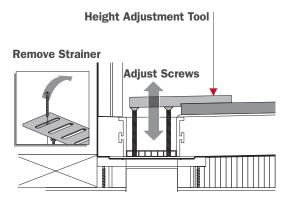
Tile and grout all surfaces following manufacturers instructions and TCNA guidelines.



24. Adjust Strainer Height

Remove strainer. Remove tape from strainer. If factory installed film, start peeling at one end of strainer. Peel side to side (sawtooth pattern) to other end of strainer. Remove remaining residue by wiping with a soft cloth and WD40™ or Goo Gone™.

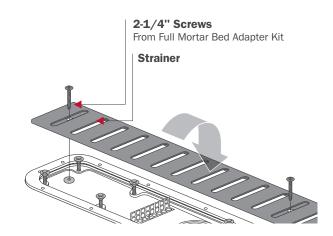
Place thin end of height adjustment tool on tile and rest other end on height adjustment screw. Adjust screws so heads are flat against bottom of tool, and tool is flat against tile. Repeat for all height adjustment screws.



25. Re-Install Strainer

Note: Strainer attachment holes are not symmetrical. If screws do not align with holes in drain base, turn strainer end-to-end.

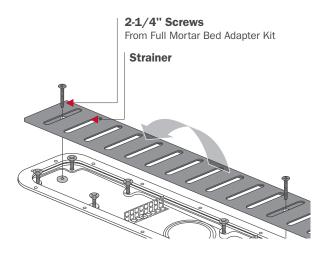
Place strainer over height adjustment screws. Confirm that strainer is flush with all tiles. Fasten with three 2-1/4" pan head screws. DO NOT OVER-TIGHTEN.



Cleaning Drain

To clean drain, remove 3 screws in top of strainer. Clear any hair or other obstructions from drain.

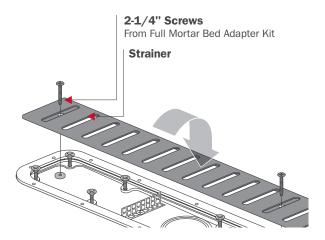
Remove Strainer



Re-Attach Strainer

Note: Strainer attachment holes are not symmetrical. If screws do not align with holes in drain base, turn strainer end-to-end.

Place strainer over height adjustment screws. Replace all three screws. DO NOT OVER-TIGHTEN.



TAKE THE FIELD.





