INSTALLATION GUIDE
StreamLine™ Linear Drain
**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.

**Sloped 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.

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823 SERIES

**StreamLine Linear Drain Includes:**

- **Pre-Strainers**
- **Clamping Collar**
- **Drain Base**
- **Pre-Strainer Screw**
  - #8 x 1/2” Phillips Pan Head Screws
- **Strainer to Base Screw**
  - #6 x 1” Phillips Pan Head Screws
  - **Note:** Will not be used with Full Mortar Bed Kit.
- **Base to Sub-Floor Screw**
  - #8 x 2-1/2” Phillips Course Deck Screws
- **Base to Sub-Floor, Concrete Anchor**
  - 1” Long, 1/4” Hole
- **Strainer Height Adjustment Tool**
- **NobleSeal® Flashing**
- **Tube NobleSealant 150**

**Note:** Shower Pan Liner will be used to waterproof entire shower, this flashing will not be needed.
Drain Sizes

Confirm Drain Size, Waste Pipe
Type and Waste Pipe Location
Drain hole is off-set to accommodate 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 DWV material (PVC or ABS) to drain base material.

Typical Drain Locations

- **Back Wall**: Flush to back wall
- **Full Curb**: Flush to curb
- **Partial Curb**: Flush to curb
- **Curb-less**: Flush to both side walls
- **On Center**: Flush to both side walls
1. Wall Preparation

Blocking
Blocking between studs may be needed for flashing and membrane attachment prior to drain installation.

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.

3. Waste Pipe

Option A: No Waste Pipe 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.

Install Waste Pipe
Follow local plumbing codes to properly install and secure 2” Sch. 40 ABS or PVC waste pipe 3/4” above sub-floor.

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

Alternate Drain Mounting Methods

Recessed mount in concrete substrate

Recessed mount in wood sub-floor

Note: 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 into all holes.

B. Install Drain Base to Waste Pipe and Sub-Floor
Caution: Confirm proper plastic pipe cement and primer for drain base type (PVC or ABS). Check drain base label to confirm.

Apply appropriate plastic pipe cement and primer 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 Pre-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.
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 Flashing

Drain at Back Wall
Flashings must turn up the walls a minimum of 3" above shower curb and 6" above floor in showers without curbs.

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

Note: Do not secure flashing at this time.
7. Prepare Flashing (cont.)

Drain at Full Curb Entry

Flashing must turn up the walls a minimum of 3” above shower curb and 6” above floor in showers without curbs.

Prior to installing flashing, 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 flashing flat. Measure and mark flashing.

Cut, fold and crease to proper size and fit.

Note: Do not secure flashing at this time.
Note: Preformed curbs may also be used. See manufacturer’s instructions.

Drain at Partial Width Curb

Flashing must turn up the walls a minimum of 3” above shower curb and 6” above floor in showers without curbs.

Prior to installing flashing, 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 flashing flat. Measure and mark flashing.

Cut, fold and crease to proper size and fit.

Note: Do not secure flashing at this time.
Note: Preformed curbs may also be used. See manufacturer’s instructions.

Inside Shower

Outside Shower
7. Prepare Flashing (cont.)

**Drain at Curb-less Entry**
Flashing must turn up the walls a minimum of 3” above shower curb and 6” above floor in showers without curbs.

Measure width of shower floor across drain base. Lay flashing flat. Measure and mark flashing.

Cut, fold and crease to proper size and fit.

*Note:* Do not secure flashing at this time.

**Drain On Center**
Flashing must turn up the walls a minimum of 3” above shower curb and 6” above floor in showers without curbs.

Measure width of shower floor across drain base. Lay flashing flat. Measure and mark flashing.

Fold and crease for upturns.

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

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**Inside Shower**

**Outside Shower**

6” min.

Fold

Outside Corners Under Flashing

Fold

2” min.

Outside Corners Under Flashing
8. Secure Flashing

A. Seal Drain Base
Lift out flashing. 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. Apply Adhesives
Apply latex-modified thin-set to mortar bed, walls and curb as needed. Apply NobleSealant 150 to any pre-formed corners.

C. Press Into Sealant and Adhesive
Align membrane and firmly press all areas of membrane into adhesive on walls, floor, curb and sealant on drain base and any pre-formed corners.
9. Fasten Flashing

Nail through top 1" of flashing to studs and/or blocking.

10. Install Clamping Collar

Align collar with drain base under flashing. Press firmly. Starting at one end, insert 5/8" screw through collar, punch through flashing and screw into base. Repeat for all screws. Do not over-tighten.

11. Cut Out Flashing

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

Caution: Do not puncture flashing outside of collar.

12. Complete Floor Waterproofing

Complete installation of bonded waterproofing membrane (ANSI A118.10) on shower floor.
13. Flood Test

Flood test as required by local codes.

14. Install Backer Board and Wall Waterproofing

**Note:** TCNA guidelines require waterproofing or a vapor membrane be installed on all walls.

Install 1/2” backer board and wall waterproofing according to manufacturer’s instructions, local plumbing codes and TCNA guidelines.

**Caution:** Do not puncture flashing.

15. 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.

16. Install Height Adjustment Screws

Screw in all 1-1/4” flat head height adjustment screws to approximately 3/8” above the clamping collar.

17. 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 1” pan head screws. **Do not over-tighten.**
18. 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.

19. Adjust Strainer Height

Remove strainer. Remove tape from strainer and clean any remaining residue.

Place thin end of height adjustment tool on tile and rest other end on height adjustment screw. Adjust screw for level. Repeat for all height adjustment screws.

20. 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 1" 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.
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TAKE THE FIELD.