1. GENERAL INFORMATION

FreeStyle Linear Drain is a low-profile linear drain with flat base and internal slope constructed from one-piece of PVC or ABS. A membrane clamping collar assures a watertight seal with Noble waterproofing sheet membrane. The FreeStyle Linear Drain is available in 7 drain lengths and with 5 strainer options.

2. FULL MORTAR BED INSTALLATION

Complete the FreeStyle Linear Drain installation instructions up to step 4.2 and STOP. A Shower Pan Liner such as Chloraloy® will be required to replace NobleSeal Flashing and is sold separately by Noble Company. Outside Corners are also recommended and sold separately. Proceed with the Full Mortar Bed installation instructions outlined below once the flashing has been installed securely to the drain.

2.1 RECOMMENDED TOOLS:

- Tape measure
- Caulking gun
- Small floor roller
- Margin trowel
- PVC or ABS cement
- Utility knife
- Straight edge
- V-notched trowel (1/8" x 1/8" or 1/4" x 1/4”)
- Square-notched trowel (1/4" x 3/8" x 1/4”)
- Appropriate plastic pipe primer

2.2 FULL MORTAR BED ADAPTER KIT HARDWARE AND MATERIALS: *Denotes items that are sold separately

Brackets
Mortar Guard
Foam Block
PVC or CPE
Chloraloy*

Note: Replaces NobleSeal® Flashing from FreeStyle Linear Drain.

Pre-Strainers
Strainer
Clamping Collar
Drain Base

A) Bracket Screw:
#8 1/2” Phillips Pan Head
B) Strainer Height Adjustment Screw:
#10 2-1/2” Phillips Flat Head
Note: Replaces Strainer Height Adjustment screws from original FreeStyle Linear Drain Kit.
C) Strainer to Base Screw:
#6 2-1/4” Phillips Pan Head
Note: Replaces Strainer to Base screws from original FreeStyle Linear Drain Kit.
5. FASTEN DRAIN BASE TO SUB FLOOR

5.1 FOR CONCRETE SUB-FLOOR:
5.1.A Mark for Anchors and dry fit drain base over waste pipe.
5.1.B Mark all holes in outside flange of drain base on concrete floor.
5.1.C Remove drain base and drill 1/4” holes, 1-1/2” deep where marked.
5.1.D Drive plastic anchors flush in all holes.
5.1.E Install Drain Base to Waste Pipe and Sub-Floor

5.2 FOR WOOD SUB-FLOOR:
5.2.A Install Drain Base to Waste Pipe and Sub-Floor.
5.2.B Mark Bed Slope and check drain base label to confirm.
5.2.C Apply appropriate plastic pipe cement and primer to drain and waste pipe following local plumbing codes and manufacturer’s instructions.
5.2.D Fit and fully seat drain base onto waste pipe.
5.2.E 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. PRE-SLOPED BED INSTALLATION

6.1 Apply tape over entire top surface of drain base for protection.
6.2 Install Pre-Sloped Bed. Follow industry standards to complete pre-sloped bed installation. If using mortar, be certain mortar completely fills void below drain base flange.
6.3 Allow to dry before proceeding.

7. PREPARE SHOWER PAN LINER

7.1 Shower Pan Liner must turn up the walls a minimum of 3” above finished shower curb and 6” above floor in showers without curbs.
7.2 Measure width of shower floor across drain base.
7.3 Lay Shower Pan Liner flat and measure and mark Shower Pan Liner.
7.4 Fold and crease for upturns and create corners.
   **Folded Corners:**
   - TUCKED CORNER (when space is available between studs): Fold and crease to size. Tuck flashing into space between studs.
   - FOLDED CORNER: Fold and crease to size. Fold corners behind flashing.
   **NOTE:** Do not secure Shower Pan Liner at this time.

8. SECURE SHOWER PAN LINER

8.1 Lift out Shower Pan Liner. Remove tape, leaving tape over drain hole only.
8.2 Apply a 1/8” continuous bead of NobleSealant 150 around chamfer on base flange and another bead in groove on drain base.
8.3 Apply NobleSealant 150 to any pre-formed corners.
8.4 Press shower pan liner into sealant.
8.5 Align Shower Pan Liner, fit, or re-tuck corners and firmly press liner into sealant on drain base and any pre-formed corners.
8.6 Fasten Shower Pan Liner. Nail through top 1” of Shower Pan Liner to studs and/or blocking.

9. INSTALL CLAMPING COLLAR

9.1 Align collar with drain base under Shower Pan Liner. Press firmly.
9.2 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.**

10. CUT OUT FLASHING

10.1 With a razor knife, carefully trim out Shower Pan Liner from center of collar.
10.1 Remove tape from drain hole. **Caution: Do not puncture Shower Pan Liner outside of collar.**

11. FLOOD TEST: Flood test in accordance with local plumbing code requirements.
12. INSTALL BRACKETS
   12.1 Align holes in Bracket with second set of holes in from end of drain base.
   12.2 Attach using two 1/2” screws. Repeat for opposite end of drain base. **Do not over-tighten screws.**

13. INSTALL FOAM BLOCK: Lay Foam Block in brackets and align ends of foam with inside edge of Clamping Collar.

14. INSTALL MORTAR GUARD
   14.1 Install Mortar Guard over Foam Block and Brackets.
   14.2 Center end to end over Clamping Collar.
   14.3 Fully seat Mortar Guard to Clamping Collar on Drain Base.

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

16. REMOVE FOAM BLOCK AND BRACKETS
   16.1 Carefully remove Foam Block.
   16.2 Remove Bracket Screws and Brackets.

17. INSTALL SLOPE
   17.1 Apply tape over entire top surface of drain base.
   17.2 Blocking between studs is recommended to support upturned membrane.
   **HINT:** Notching the studs at each corner approximately 1/8” will provide space for folded Chloraloy corners and prevent backer board from bowing. If metal studs are used, the backer board can be “shimmed” slightly to provide space for the folded corners.
   17.3 Substrate should be sloped per code requirements (1/4” per foot) with no depressions where ponding could occur.
   17.4 Where drains are incorporated into the installation (e.g. showers, commercial kitchens, decks, etc.), the substrate must be sloped towards the drain.
   17.5 Allow to dry before proceeding. Remove tape from drain.

18. INSTALL SHOWER PAN LINER: Refer to shower pan liner installation instructions.

19. INSTALL BACKER BOARD AND WALL WATERPROOFING Install 1/2” backer board and wall waterproofing according to manufacturer’s instructions. **Caution: Do not puncture Liner.**
   **NOTE:** Plumbing codes and TCNA guidelines state that shower walls must be sealed with a vapor barrier or waterproofing membrane.

20. INSTALL PRE-STRainers
   20.1 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, and secure in place.

21. TEMPORARILY ATTACH STRAINER
   21.1 Install Height Adjustment Screws: Screw in all 2-1/2” flat head height adjustment screws to approximately 1-5/8” above the clamping collar.
   21.2 Place strainer over height adjustment screws.
   21.3 Temporarily fasten with 2-1/4” pan head screws. **Do not over-tighten screws.**
   **NOTE:** Strainer attachment holes are not symmetrical. If screws do not align with holes in drain base, turn strainer end-to-end.

22. TILE AND GROUT
   22.1 Protect the strainer with tape.
   22.2 Tile and grout all surfaces following manufacturer’s instructions and TCNA guidelines.
   22.3 Allow for 1/16” clearance between strainer and tile. **Caution: Do not grout or seal this space.**
23. ADJUST STRAINER HEIGHT
   23.1 Remove strainer and tape from strainer. If factory installed film, start peeling at one end of strainer. Peel side to side (saw tooth pattern) to other end of strainer. Remove any remaining residue and polish by wiping with a Tub O’ Towel®.
   23.2 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.

24. RE-INSTALL STRAINER
   24.1 Place strainer over height adjustment screws.
   24.2 Confirm that strainer is flush with all tiles.
   24.2 Fasten with three 2-1/4” pan head screws. Do not over-tighten screws.

25. CLEANING DRAIN
   25.1 TO CLEAN DRAIN: remove 3 screws in top of strainer. Clear any hair or other obstructions from drain.
   25.1 RE-ATTACH STRAINER: Place strainer over height adjustment screws. Replace all three screws. Do not over-tighten. NOTE: Strainer attachment holes are not symmetrical. If screws do not align with holes in drain base, turn the strainer.

26. LIMITATIONS: For applications or procedures not specifically detailed in these installation instructions, contact Noble Company. Installation must follow TCNA recommendations and appropriate industry standards.
   For any applications or procedures not covered in these instructions, contact Noble Company.