

DELTA®-DRAIN

The Direct Route For Re-Redirecting Ground Water.™

Below grade foundation drainage for block and poured concrete structures.

Installation Instructions

RECOMMENDED TOOLS:

- Concrete nails 1 1/4" - 1 1/2"
- Hammer or automated nailing gun Trak-Fast 1100, Hilti DXA 40, DXA 41
- Utility knife or tin snips
- Large caulking gun, chalk line, broom
- * For masonry installation Trak-Fast 1100 gun is recommended for installation on block.

GETTING DOWN TO INSTALLATION:

- Check to ensure the expected final grade line is a starting point and is located at the height of the waterproofing. Clean top of footer of any gravel and debris with a broom.
- Install DELTA®-DRAIN with fabric facing towards the backfill (water source). The "flat tab" should always be at the top of your installation.
- Place the bottom of the roll on top of the footing with the roll positioned in the direction of installation for easy roll-out of DELTA®-DRAIN.

ROLL OUT DELTA®-DRAIN:

- For ease of installation it is suggested to work with 2 people.
- Roll out DELTA®-DRAIN approximately 10' in length along the wall.
- As one person holds the DELTA®-DRAIN, the other person installs initial DELTA®-FAST'ners at appropriate intervals (Detail 1).
- Always install the DELTA®-DRAIN tight and even over the foundation wall to be protected, tuck extra filter fabric at flat tab over and behind the tab.
- For foundation heights greater than the roll height start rolling out DELTA®-DRAIN at the bottom of the wall. The next course of DELTA®-DRAIN shall overlap the bottom layer by at least 6".

INSTALLING AROUND CORNERS:

- Install DELTA®-DRAIN on **INSIDE CORNERS** as tightly as possible by pre-bending the membrane in the corner, then anchor it in place with DELTA®-FAST'ners.
- Install DELTA®-DRAIN on **OUTSIDE CORNERS** as tightly as possible by bending the membrane around the corner, then anchor it in place with DELTA®-FAST'ners. Do not install any DELTA®-FAST'ners within 5" of the exterior corner to avoid damage to the wall.

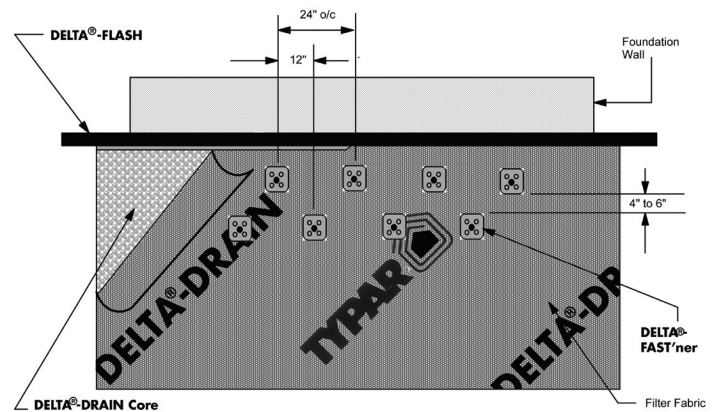
JOINTS AND OVERLAPS:

- Overlap DELTA®-DRAIN at all joints at least 6". Strip back the filter fabric of the lower layer to allow the membrane to overlap, then return the filter fabric over the joint and stick in place with DELTA®-SEALANT and fasten as necessary.
- **HORIZONTAL JOINTS** require the installation of DELTA®-FAST'ners over the full length of the joints at 12" o/c. DELTA®-FLASH is not required on the lower section.
- On **VERTICAL** installations strip back the filter fabric of the adjoining layer to allow the membrane to overlap (Illustration 1).

Detail 1



Detail 2



Detail 3

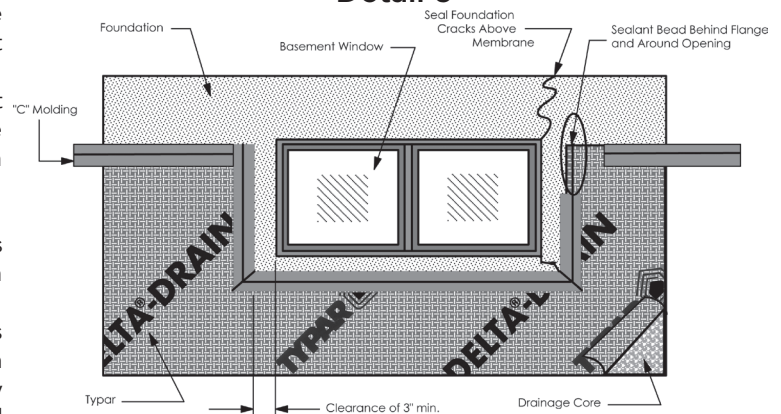


Illustration 1



DELTA®-DRAIN Installation Instructions *continued*

ANCHORING DELTA®-DRAIN: (Detail 2)

- For anchoring of DELTA®-DRAIN use DELTA®-FAST'ners with 1 1/4" - 1 1/2" concrete nails.
- Install the first row of DELTA®-FAST'ners 2" below the flat tab.
- Install the second row of DELTA®-FAST'ners 4" to 6" below the first row of DELTA®-FAST'ners, inserting them in a stitched "W" pattern at the required spacing.
- For installations where the waterproofing cannot be pierced by DELTA®-FAST'ners, an approved adhesive can be used to attach the membrane to the waterproofing. Check with the waterproofing manufacturer regarding compatibility.

INSTALLING DELTA®-FLASH: (Detail 3)

- Position the DELTA®-FLASH so that the top of the flat tab and fabric is completely covered behind the DELTA®-FLASH.
- Install 1 1/4" - 1 1/2" concrete nails at 8" o/c in the DELTA®-FLASH.
- Bend DELTA®-FLASH around inside and outside corners keeping it tight to the wall. Place nails at exterior wall-corners not closer than 5" to the corner.
- Install DELTA®-FLASH at all vertical terminations of the membrane.
- Install DELTA®-FLASH at all below grade cuts of the membrane such as at window wells, walkouts, etc..
- For window openings cut back DELTA®-DRAIN 4" from edge of wall opening for installing DELTA®-FLASH.

REPAIRS:

- In case the membrane gets damaged prior to backfill cut patches of DELTA®-DRAIN core large enough to cover any tear. Ensure extra fabric is used to seal the patched area to keep the drainage core clean.
- Apply 1/2" bead of DELTA®-SEALANT around the patch and fasten.
- Apply patch over tear and install DELTA®-FAST'ners to hold patch tight against membrane.
- For technical assistance call the Technical Support Team at 1-888-4DELTA4.

SERVICE PENETRATION:

- Caulk all joints/overlaps in service penetrations including through wall pipes for all services.
- Unroll the DELTA®-DRAIN and position for overlaps.
- Strip back the filter fabric at least 6" to allow for overlap of the DELTA®-DRAIN, then lap filter fabric over lap joint using DELTA®-SEALANT.

CLEAN-UP AND INSPECTION:

- Walk around foundation and ensure all materials are installed as required.
- Clean up all excess materials and remove from excavation.

HEALTH AND SAFETY:

- Required safety equipment: hard hat, safety boots, gloves, safety glasses.
- Always follow all safety precautions as directed by the Occupational Safety and Health Administration (OSHA – USA) or the Construction Safety Association (Canada).
- There is no health risk in using DELTA®-DRAIN and the recommended components. However, the general codes of practice for protection at work and instructions of the manufacturers of tools and components are to be observed.

DISPOSAL OF WASTE:

- As DELTA®-DRAIN is made out of environmentally friendly HDPE, waste can be placed in household disposal areas and recycled.

LIMITATIONS:

- DELTA®-DRAIN should not be exposed to ultraviolet light for more than 4 weeks.

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DELTA®-branded quality products manufactured by Cosella Dörken.

Approximate Conversions to Metric Measures

Symbol	Multiply by	To Find
in (")/inches	25	mm/millimeters
ft (')/feet	300	mm/millimeters
		1000 mm (millimeters)= 1m (metre)
<i>Example: 1.5" to mm: 1.5 x 25= 37.5 mm</i>		
<i>Example: 10' to m: (10 x 300)/1000= 3 m</i>		

The information printed in this brochure reflects product information and specifications at the date of printing. The manufacturer reserves the right to make changes when necessary.

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