



Below Grade Moisture Management

Making your wet basement drier

So you have a wet basement?

(believe me, you're not alone)

Maybe,

We can help make it less wet.

Maybe even dry!

Let's give it a try.

First thing's first: your basement is wet for a reason

(and it's not because you're a bad person)

It is because there is an excessive amount of water in the soils (fill) around and under your basement floor, footings, walls, and on the surface landscape, both hard and green.

First thing's first

Your basement will be drier when there is less water in the soils (fill) around and under your basement floor, footings, walls, and on the surface landscape, both hard and green.

First thing's first

Doing everything possible to eliminate or lessen the amounts of water in these locations will help to make your basement drier. Start by doing the exterior work first.

- Landscape (shrubs, lawn, plants)
- Hardscape (patios, sidewalk)
- Down Spouts
- Gutters

Now You Can Start the Interior Work

Have a professional engineer inspect your basement walls, footings, and floors for general soundness

Important Information About Sump Baskets

- Their purpose is NOT to hold water
- Their purpose IS to hold back the drain field stone from collapsing in on the sump pump.

(and now you know something that 90% of the wet basement restoration industry does not know)

Important Information About Sump Baskets

Connecting the reservoir of water in the drain field around the sump basket to the void the sump basket maintains, makes the water available to the sump pump. The sump pump in turn pumps it out of your basement, and keeps it out of the living envelope.

Important Information About Sump Baskets

Three of the main contributing reasons why a basement moisture management system fails during a rainstorm are

- power failure to a sump pump
- pump motor burnout
- drain field reservoir capacity overwhelmed by infiltrating water surge

Important Information About Sump Pump Burnout

- Electrical motors are more likely to fail if they stop and start in short cycle times
- In sump pumps, short cycle times are a result of not enough water available to support a long and productive pumping cycle
- Sump baskets by themselves do not have enough capacity to support an extended productive pumping cycle and to absorb a water surge from a rain storm

Install a Complete Sump Basket Sump Pump System First. Why?

1. It “may” just dry up your whole basement.
2. If you decide to install a drain field drain system you will need to control infiltrating water in your basement during installation.

Install a Complete Sump Basket Sump Pump System First. Why?

3. The sump basket installation and required construction steps will give you important information about your basement
 - What type of concrete floor you have (thickness, reinforcing)
 - What type of footing you have (if you have one)
 - The type of fill under the floor and next to the footings
 - How much water is in that fill
 - And an opportunity to open an inspection port at the lowest point in the basement wall

Sump Basket Installation

Rules:

1. Buy the very best
2. Install it correctly

The Sump Basket

18" x 30" structural foam storage basin
SF30 PR

Manufactured by



- Drill $\frac{3}{4}$ " holes every 3" to within 6" of sump basket rim
- Cut out or drill holes in bottom of sump basket



Preparing to Install Sump Basket

1. Employ a professional to determine the structural soundness of basement walls and footing
2. Correct all exterior grade discrepancies
3. Determine sump basket location
 - Basement (Corner, closet, under stairs, etc.)
 - Venting to Exterior
 - Not onto neighbor's property
 - Not onto sidewalk
 - Not into low landscape (bad grade, no drainage)
 - Check for all gas, electric, plumbing, sewer connections

Preparing to Install Sump Basket

4. Purchase sump pump & all required plumbing accessories
 - Pipe
 - Back flow valve
 - Backup battery system
5. Install all electrical supply required

Preparing the Sump Basket Location

1. Use a concrete Saw to cut out a 4' x 4' section of basement floor at sump location
 - If the location is adjacent to a wall, also remove the concrete floor between the 4'x4' hole and the wall.
2. Remove existing fill to a depth of 44" from top of concrete floor

Note:

- Removing fill in close proximity to footing should be done with great caution to maintain structural integrity
- Monitor the volumes of water entering this excavation
- Monitor the stability of soils on the side walls of the excavation

Installing the Sump Basket & Pump

1. Install 1 1/4" round river rock to within 32" of top of basement floor
2. Position sump basket in center of 4' x 4' hole
3. Install 1 1/4" round river rock around sump basket to within 6" of top of basement floor
4. Plumb in sump pump
5. Install sump pump

Finishing the Installation

Installation Adjacent to Wall

6. If you installed the sump basket next to a block wall, vent wall to drain using a hammer drill with 1" diameter bit to drill a hole in each core where the bed joint mortar meets the footing
7. Install **MTI Floor Edging** (FE8555) along wall, on footing. If the horizontal leg of **MTI Floor Edging** does not extend past the interior edge of the footing, use **MTI Control Cavity** (CC4800) to extend it over the interior edge of the footing.

Finishing The Installation

8. Install 6 mil poly over drain field site

The next slide contains an animation of the installation instructions you just read.

After Installation

- Monitor the sump pump's cycling times
- Monitor change of moisture infiltration patterns in basement
- Monitor water color to determine silt content of moving water (use a series of sediment jars)

Next: See our drain tile installation [here](#)

What's Next

Next: See our drain tile installation [here](#)

Please direct questions or comments on this presentation to mark@mtidry.com or call 1-800-879-8348

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