CleanSpace®

Crawl Space Encapsulation System®

The real solution to dirt crawl spaces

The CleanSpace System

Developed by Basement Systems, the world leader in dry, below ground technology.

Why Is Crawl Space Moisture so Bad?

Excessive moisture leads to mold growth, musty odors, structural damage, and insect and rodent infestations. Moisture will ruin houses by providing a hospitable environment for mold, fungi, and insects that destroy wood framing. Crawl space moisture, and the mold and mildew that thrive in this environment, affect not only the floor system directly above, but also the entire house.

Water, heat, and ultra-violet radiation destroy organic materials, particularly wood. Water is the most damaging, but is the easiest to control.

Properly sealing the crawlspace and removing the moisture from the ground and air will create a more energy-efficient and healthier home by providing a mold-free, radon-free, and insect free environment.

To avoid moisture's negative affects, a crawl space should be completely sealed and isolated from the ground and the humid outside air. An effective method to lower crawl space humidity, tested and perfected CleanSpace is a heavy 20-mil-thick material and similiar to a pool liner. This crawlspace vapor barrier system involves installing a 20-mil 7-ply sandwich of high and low-density polyethylene with polyester-cord reinforcement on the dirt or concrete floor, that is fastened to the walls. This extra-heavy reinforced lining is made especially for this stystem and is treated with an antimicrobial finish that protects against mold and mildew growth under the crawlspace liner.

Lower energy bills, resulting from reduced crawlspace humidity, translate into comfort and savings year after year. The CleanSpace crawlspace vapor barrier is tough enough for service people to crawl on and safe enough for storage. Being bright white, the CleanSpace liner really brightens a crawlspace too, making it a relatively pleasant storage place.

PRODUCTS & SERVICES WE OFFER

- **Crawl Space Moisture Control**
- **Sump Pump Installation & Service**
- **Interior & Exterior French Drainage Systems**
- **And many more products . . .**

ALLERGIES MOLD STOP MILDEW DRY ROT

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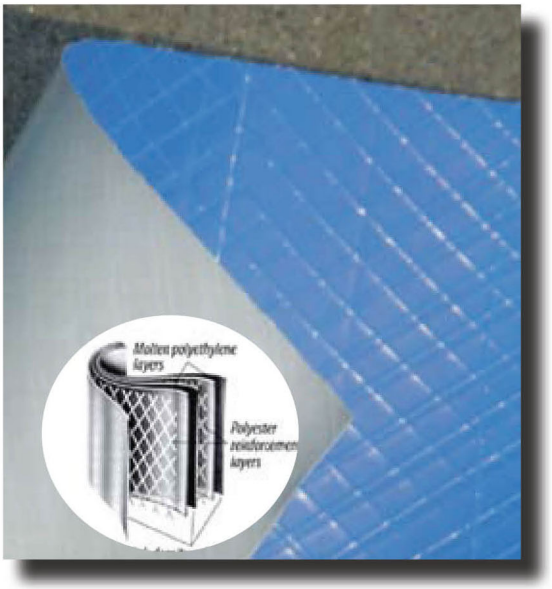
. . . The Solution:

The CleanSpace® Liner



The key to the *CleanSpace* system is the patented, 20-mil thick liner material. It is a tough blend of seven polyethylene and polyester cord reinforcement layers, designed specially for crawl spaces. Since the side you see after installation is bright white, it really brightens a crawl space and lets you know that it is free of mold, insects and dirt. Plus, the CleanSpace liner is manufactured with an antimicrobial additive called Ultra Fresh - molded right into the material. The liner is so tough you can crawl on it without worry of putting holes or tears in it. And, of course, it completely stops moisture from getting in and ruining the underside of your house.

The CleanSpace liner is built tough enough for servicemen to be able crawl on it without worry of putting holes or tears in the liner. The liner completely stops moisture penetration. The CleanSpace liner is used to isolate the home from the earth completely and permanently.

HOW IT WORKS

The *CleanSpace® Crawl Space Encapsulation System®* completely isolates your home from the earth. This dramatically reduces the humidity level in the air which will help eliminate mold growth and rot from your crawl space and make the whole house healthier.

Trained installers will remove wood and organic materials from your crawl space floor. Rocks and uneven surfaces are leveled, depending on the crawl space conditions.

The CleanSpace liner is carefully cut and installed. The workers will usually be working in their socks, once the floor piece is laid out to keep the liner clean. That's how clean your crawl space will be!

Small holes are drilled into the top of your crawl space walls, and nylon fasteners are installed to permanently secure the CleanSpace liner to the walls.

The top edge of the CleanSpace liner is sealed to the walls with polyurethane sealant. All seams are sealed with special 4 inch wide sealing tape and/or sealant made for the CleanSpace liner. The result is an attractive, bright, tough, impervious liner - and a healthy home above it!

DRAINAGE MATTING

Creates a drainage space under the CleanSpace liner for water to flow beneath. Adds durability, is puncture resistant, and creates a thermal break.

The Problem and The Damage . . .

BUGS & CRITTERS

Dirt crawl spaces are great places to live, thrive and reproduce if you're a bug. There is an even temperature, moisture, damp wood and shelter. Spiders, beetles, centipedes, termites, and all kinds of other insects are found in dirt crawl spaces. Animals such as mice (dead and alive) are commonly found in dirt crawl spaces. In some cases, even rats, snakes and small animals have been found.

MOLD & STRUCTURAL DAMAGE

Mold spores, the seeds of mold, are in the air everywhere. All they need to grow is organic material such as wood, the right temperature range, and moisture. Of these, the only one that can be controlled is moisture.

Dirt crawl spaces have the high humidity levels necessary for mold growth. Humidity levels from 50% to 90% are easily found in dirt crawl spaces that have never flooded.

Mold can grow on dirt, insulation, framing and even under your carpet on the first floor. Mold destroys organic materials as it feeds on them. Mold reproduces by producing millions of floating airborne spores, which some people are very sensitive to. Spores can be dormant for many years, waiting for the right conditions to grow. Some molds produce mycotoxins, such as the black mold Stachybotrys. Many articles can be found on the effects of mold and toxic mold.

Don't panic; there is a solution that will stop your crawl space from being a hospitable environment for mold. Mold will not grow when the humidity levels are reduced below 50%.

CONDENSATION

Because of the high humidity level in a dirt crawl space, cool surfaces will sweat with water vapor condensing out of the air, such as the earth at 55 degrees, concrete and metal surfaces. This causes rot, smells, and is a water source for critters.

PREMIER SUMP PUMP SYSTEMS

All dirt and vented crawl spaces can benefit greatly from encapsulation with the CleanSpace System, but if there is an existing water problem it needs to be dealt with before a homeowner can seal their crawl space. The core of this system is a sump pump, but only one that is designed specially for use with the crawl spaces and the CleanSpace system.

There are plenty of horror stories of failing sump pumps, but choosing the right sump equipment can keep the space beneath your home free of water. The wrong sump pump, however, could make it you telling the story of how your sump failed when you needed it.

The SmartDrain

The **SmartDrain** will be installed in a lowspot in your crawl space. SmartDrain will help prevent encapsulated crawl space from filling up with water from a plumbing leak. When there is a leak, the water naturally runs to the low spot where the SmartDrain is located. SmartDrain will alert you when there is a leak and drain a small amount of water away until you are able to fix the leak.

If the ground slopes to one corner, install a sump in the lowest corner.

SuperSump

The **SuperSump** system includes the most reliable pump available - a high end, 1/3 hp Zoeller cast iron pump with mechanical float switch, a Water Watch Alarm System, and Airtight lid!

Sump Lid Options

Standard Smart Sump Lid

Tuff Top Sump Lid (heavy rigid 3/4")

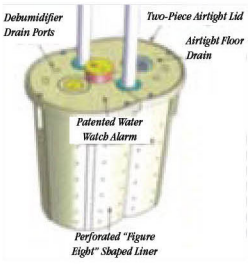
Standard SuperSump Lid

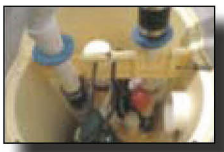
Solid Sump Cover

Interior French Drain/Water Guard

8"drain box option

Pop-up Drain option for a pump discharge line.





TripleSafe Sump Pump

The **TripleSafe Sump Pump** system has three pumps to give you complete protection. If your first pump fails, the second one takes over. If your first pump can't keep up, then it and a more powerful second pump run at the same time - more than doubling capacity.

Pump Alarm Option

From Left to Right: Water Watch II Floor Alarm, WaterWatch Alarm Probe with Extension Cord and Remote Switch, WaterWatch II Alarm (with probe).

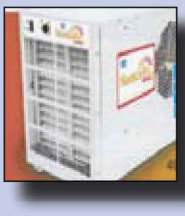
UltraSump Battery Backup System

You can rest easy 24 hours a day knowing the UltraSump is on the job, especially when you are away from home. Its outstanding 2,000 gallon per hour output, automatic electronic "smart" charger, heavy duty motor and reliable switch, are a winning combination.

The UltraSump battery back-up allows you to relax even when you are not home.

The SmartSump

The **SmartSump** system has a high-quality Zoeller 1/3 hp cast iron pump and is recommended for small tight spaces.

DEHUMIDIFICATION

Many crawl spaces can benefit from (and most need) dehumidification to dry the crawl space air. Your dealer can recommend a dehumidification unit appropriate for your home.