

BLACKBURNTM

FOUNDATION REPAIR



YOUR LOCAL EXPERTS IN:

Basement Water Control | Foundation Repair | Crawl Space Repair | Concrete Repair | Indoor Air Quality

BLACKBURNTM FOUNDATION REPAIR

Solutions Guide

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BLACKBURNTM

FOUNDATION REPAIR

OUR VALUES	
One Team	✓ Teamwork ✓ Selflessness ✓ Willingness to Help
Customer First	✓ Putting the Customer First ✓ Committed to Customer Service
Dependable	✓ Reliability ✓ Accountability
Passionately Driven/Hardworking	✓ Excellent Work Ethic ✓ Committed to Overcoming Challenges ✓ Tenacity ✓ Going the Extra Mile

Blackburn Foundation Repair has been providing the best solutions for basement waterproofing, crawl space and foundation repair in South Dakota, Nebraska and Wyoming since 1992. Thousands of homes, businesses and government agencies have been serviced by our trained professionals.

Blackburn Foundation Repair is a certified member of the Foundation Supportworks®, Contractor Nation® and National Radon Defense® networks. We offer patented solutions for groundwater intrusion, basement dehumidification, bowed and cracked walls, foundation settlement, radon mitigation and settled concrete.



OUR WARRANTIES

CarbonArmor®	FlexiSpan®	PowerBrace™
CleanSpace®	GeoLock®	SmartJack®
EverBrace®	Piers	WaterGuard®

Radon Mitigation

Radon levels will not rise above 4 pCi/L for 10 years.

PolyLevel®

Will not settle more than 1/4 inch for a two year period. If purchased with NexusPro then the warranty extends to 5 years.

SuperSump®	TripleSafe™	UltraSump™
SuperSump+®	SmartSump™	

WHY YOU SHOULD FIX YOUR HOME NOW

If you don't fix it now, you will pay for it later — literally.

If you plan to sell your home at some point, you will have to disclose issues like basement leaks, crawl space problems, mold and foundation complications and fix them before closing the sale. And none of these problems will get better with time. In fact, they'll get more expensive as they get worse. But don't panic — we can help you fix them now, giving you the peace of mind you deserve and potentially saving you a lot of money in the long run.

OUR FOUR BELIEFS

1 Fix it.

When there is a problem, it should be fixed.

2 Fix it right.

A permanent solution should be implemented the first time to avoid costing you unnecessary time, money and frustration.

3 Fix it now.

The problem should be fixed now instead of allowing it to become bigger and more expensive.

4 Fix it with us!

We believe we offer the best solutions installed by the best people using the best techniques, so we believe you should fix it with us!

OUR SERVICES

Learn more about our services in the following sections:



Basement Water Control

Built below ground in varying soil conditions, basements are prone to moisture problems as soil pressure forces water through walls, floors and joints. Over time, contractors and engineers have developed many ways to keep them dry. **Learn more on page 10.**



Foundation Repair and Wall Stabilization

Small cracks in plaster or drywall and sticking doors or windows are nuisances, but they can also be early signs of foundation failure. Left unchecked, these problems will only get worse, eventually resulting in total foundation failure. The only real option is to repair your foundations sooner rather than later. After all, foundation problems don't fix themselves, and your home's resale value will suffer — if it can be sold at all. **Learn more on page 26.**



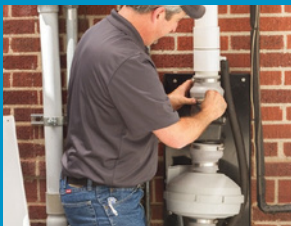
Crawl Space Repair

A vented crawl space is a recipe for moisture and mold problems. As damp air enters through vents, doors and the porous walls around your foundation, it creates ideal conditions for mold, mildew and wood rot. **Learn more on page 40.**



Concrete Repair

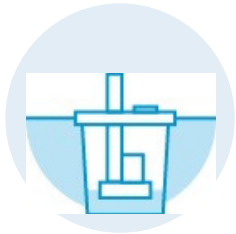
Sunken concrete is a serious issue affecting sidewalks, steps, patios and walkways. These uneven surfaces pose safety risks — especially for children, older adults and those with medical conditions. People with balance or coordination challenges are particularly vulnerable to slips, trips and falls caused by uneven concrete. **Learn more on page 56.**



Indoor Air Quality

There are a variety of pollutants lingering in your home that can lead to asthma, allergies and elevated susceptibility to long-term illness. **Learn more on page 66.**





Your home is likely your most significant investment, and its basement should be a clean, dry and usable space. A wet basement creates stress and uncertainty as you try to identify the cause and choose the right contractor to fix it properly. Blackburn Foundation Repair can help eliminate that stress with a lasting solution that protects your home. So, whatever issues you're facing, take comfort in knowing they can be fixed — and fixed right.



WHY INSTALL A WATER CONTROL SYSTEM?

A basement water issue never gets better on its own. The longer you wait, the more it will cost to fix down the road.

Resale value. No one wants to buy a house with a wet basement.

Health issues. Moisture in your basement can cause mold that can lead to respiratory problems for you and your family.

Air quality. When warm air escapes your home's upper levels, the damp air from your wet basement makes its way into your living areas.

Dust mites. These insect pests absorb water from the air and can thrive in your home if humidity levels are high. Dust mites are the #1 pest triggering reactions in people with allergies and asthma.

Damage to upstairs floors. Moisture in your basement can cause the floors on the first level of your home to become saturated resulting in buckling and warping.

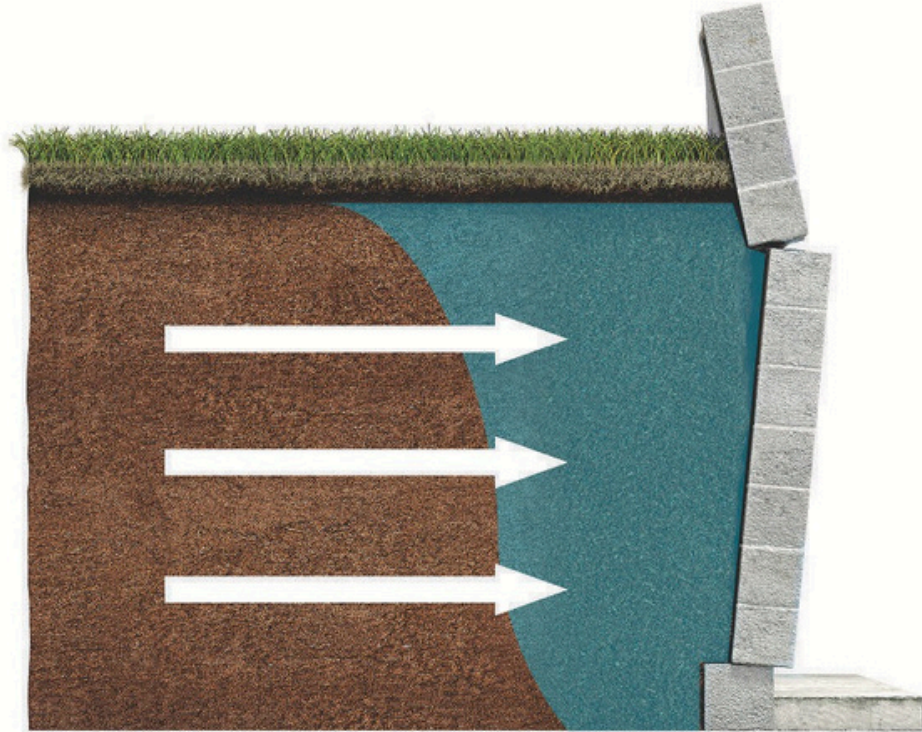
WHERE TO LEARN MORE

Causes of basement moisture problems, page 12.

Signs of basement moisture problems, page 14.

Our solutions for basement moisture problems, page 16.

Basement moisture problems can be caused by a variety of factors — but regardless of the reason, moisture and basements generally do not mix.



HYDROSTATIC PRESSURE

Hydrostatic pressure is the pressure exerted by a fluid due to the force of gravity. As water saturates the soils around your home's foundation, it puts pressure against the walls. Because these walls are porous, water can be pushed into your basement.



POOR GRADING

If the land around your home is pitched towards the foundation, water will flow towards your basement walls every time it rains. This water can cause damage to your home if it is not diverted away. Poor grading is one of the most common causes of basement water intrusion.



SETTLING DIRT

When a new home is built, loose soil is pushed back against the foundation walls. When this soil around your home settles, water can easily flow towards your foundation walls. Concrete, brick and stone walls are porous and allow this water to enter your home.



FAILED FOOTING DRAIN

Another common cause of a wet basement occurs when a footing drain fails, causing the soil around the foundation to become saturated. Water then enters through the joint between the footing and the wall, through cracks in the wall or from underneath the footing.



WET WALLS AND FLOORS

Damp walls and floors during rain is a major indicator that water is not draining away from your home's foundation. Eventually damp walls and floors can result in more serious leaks and flooding.



POOR INDOOR AIR

Low quality indoor air may indicate dust mites, mold or other allergens in your basement. This contaminated air is pulled through your basement into your living area.



EFFLORESCENCE

This condition produces a white, often sparkly residue on basement walls. Efflorescence is caused by salt deposits left behind by the evaporating water.



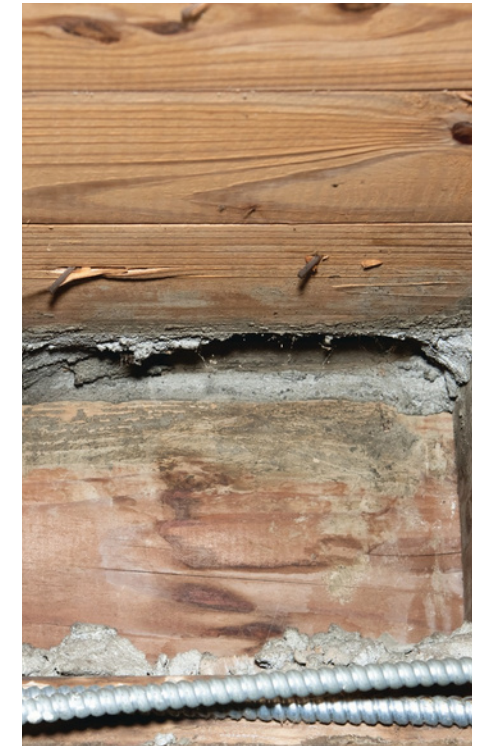
MOLD AND MILDEW

One of the most apparent signs of moisture problems is the presence of mold. It can often be found on the floor joists and walls of your basement.



SAGGING FLOORS

Floors can sag when moisture saturates the floor joists beneath them. Sagging floors can be a sign of severe moisture issues and will get worse over time if left untreated.



ROTTING WOOD

Rotting wood is another strong indicator of moisture problems. If wooden beams, or anything else made of wood begins to rot, you need to fix the source of the problem immediately.

WATERGUARD® Perimeter Drain System



WaterGuard® is a perimeter drain system specifically engineered to fix basement water problems effectively without the issues of clogging from soil and sediment.

WaterGuard® intercepts water at the perimeter of your basement and sends it away safely to your sump pump. The system can be used with our other products to keep your basement dry and clean, so you can use the space for living and storage.

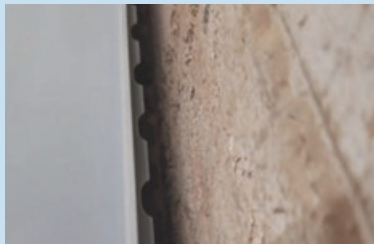
This product works with all foundation types.

How It Works



Engineered Design

- Does not sit in the dirt, so clogging from sediment under the floor is limited



Wall Flanges

- Creates space between the floor and wall to drain leaks and seepage
- Does not allow debris to enter the system



Drain Outlet

- Takes water to a recommended TripleSafe, or other drain

TRIPLESafe™ SUMP SYSTEM | The World's Most Reliable Pumping System



The TripleSafe™ sump pump system offers triple the protection of a standard pump to keep your basement dry.

A sump pump is essential — but what if it fails, the power goes out or one pump can't handle heavy rain? The TripleSafe™ guards against all of that and more. It features a removable lid for easy service and a WaterWatch® Alarm to alert you if there's a problem.

How It Works



Pump 1: Zoeller M-53
1/3 hp Pump

- Primary pump used when removing water
- Efficient and reliable



Pump 2: Zoeller M-98
1/2 hp Pump

- Runs if primary pump fails, or if it can't handle the water flow
- Both pumps together remove 6,200 gallons of water each hour



Pump 3: UltraSump
Battery Backup Pumping
System

- DC Operated Pump
- If the power goes out, the power turns on the pump to remove water
- 5 Year Warranty

ULTRASUMP® Battery Backup Pumping System



The UltraSump® provides peace of mind through power outages and primary pump failures. This battery backup system will pump 12,000 gallons on a new power pack.

How It Works



DC Operated Pump

- If the power goes out, this pump turns on automatically, powered by a power pack
- Optional dual power pack configuration doubles water output
- Great for rural properties

SUPERPUMP+® Pump Pump System



The SuperSump+® is a powerful, fully submersible, float-operated pump designed to keep your basement dry. As the heart of a basement waterproofing system, these two pumps provide reliable protection against unwanted water.

SUPERSUMP® | Sump Pump System



The SuperSump® keeps your basement dry using a fully submersible float-operated sump pump. A sump pump is a vital part of any basement water control system.

How It Works



Zoeller M-53 1/3 hp Pump

- Fully operated and fully submersible
- Non-clogging vortex impeller
- Solid polypropylene float
- Corrosion-resistant design with stainless steel components

RIMTIGHT | Rim Joist Insulation



RimTight insulation seals and insulates your rim joists using either rigid foam panels or spray foam for hard-to-reach areas.

How It Works



- Reduces warm, humid air entering in summer, resulting in less condensation
- Saves energy and lowers heating costs

FOAMAX® | Wall Insulation Panels



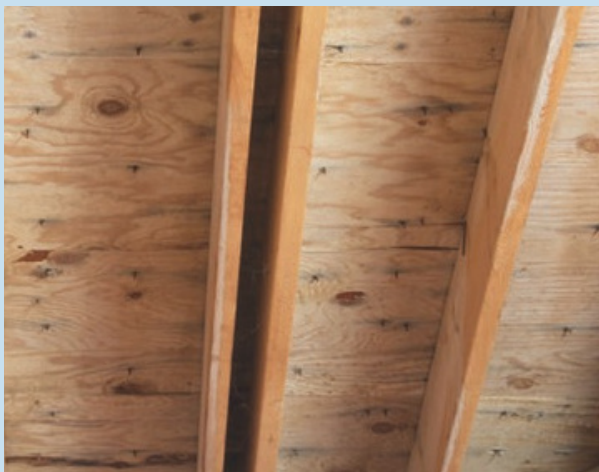
Foamax® is an advanced polyisocyanurate foam insulation panel with a white foil finish on the front and a foil vapor barrier on the back. The white finished face brightens the basement, and the vapor barrier helps control basement humidity.

Foamax® also insulates your basement walls, providing additional comfort and potentially lowering heating costs.

How It Works

- Foamax® acts as both a thermal and vapor barrier on the back, helping to regulate temperature and reduce condensation in crawl spaces and basements. Its insulative properties keep moisture out and comfort in, protecting your home from mold and humidity issues.

MOLD-X2 | Concentrated Mold Cleaner



Our mold remediation technique involves a highly concentrated disinfectant cleaner that uses a fungicide to kill and prevent the growth of mold and mildew.

How It Works



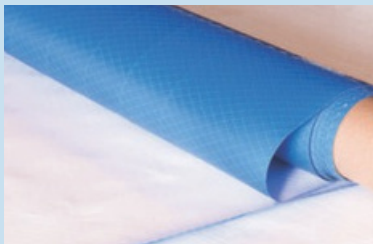
- Kills fungi, mold and mildew as well as common household germs
- Meets EPA standards

CLEANSPACE® Basement Wall Vapor Barrier



The CleanSpace® Wall system is a quick and economical way to encapsulate basement walls. CleanSpace® stops water vapor from permeating the walls and moves the water from any leaks to the perimeter drain. This washable liner can conform to bumpy or cracked walls and is installed with permanent drilled-in fasteners. The CleanSpace® Wall system is a bright and durable vapor barrier for any basement!

How It Works



Antimicrobial

- Manufactured with integrated UltraFresh™ additive so mold can't grow



Vapor Barrier

- Stops water vapor from spreading through walls and sends leaks to the drain system





Your home and everything in it — including you and your family — rest on its foundation. Unfortunately, foundations can sink, crack and settle for various reasons. Left unaddressed, these problems only grow worse over time and become more expensive to fix.

Blackburn Foundation Repair has the expertise, equipment and experience to address your home's foundation problems and give you the peace of mind you deserve. When Blackburn repairs your home's foundation, you know it's done right.

WHERE TO LEARN MORE

Causes of foundation damage, page 28.

Signs of foundation damage, page 30.

Our solutions for foundation damage, page 32.



Foundation problems don't get better with time. The longer you wait to address them, the worse and more expensive they get to fix.

Resale value. Nobody wants to buy a house with foundation problems.

Appearance. Foundation issues often cause unsightly cracks on the interior and exterior of your home.

Door and window operation. When part of a home's foundation sinks. It can throw the entire structure out of alignment, causing doors and windows to stick and jam.

Water intrusion. Cracks can let water and moisture in, which cause damage to your home in many ways.

Safety. Collapsing foundations, falling bricks and other potential hazards can present serious safety issues around your home.

Foundation damage can be caused by various reasons — but almost all have something to do with the soil around and underneath your home.



ACTIVE ZONE

The active zone refers to the soil beneath the surface that is most affected by changes in moisture. The density and moisture level of this area shifts as the seasons and climate change. The active zone may be just a few feet below the surface or more than 30 feet below it, depending on the geology beneath your home.



SOIL MOISTURE

Heavy rain and floods cause the soil surrounding your home to become wet and hold water. This makes the soil very soft and weak, allowing the structure to sink or shift down into it. Drought can also cause the soil to shrink, creating voids into which your home can settle.



POORLY COMPACTED FILL SOIL

During its construction, the area around and beneath your home was filled with the dirt that was dug up to prepare the lot for its foundation. When this fill soil is not compacted properly, it can compress under the weight of the home over time, causing it to sink and settle. Even the best compacted soil won't compress as well as undisturbed native soil.



HYDROSTATIC PRESSURE

Hydrostatic pressure is the pressure exerted by fluid due to the force of gravity. As water saturates the soils around your home's foundation, the weight of that water puts pressure against the walls, potentially affecting the stability of your home's foundation.



FOUNDATION CRACKS

Stair-step cracking seen on the foundation exterior or on interior foundation walls is a common sign of foundation settlement and damage. Stair-step cracking is very common in brick and concrete block walls. The cracks typically widen as your home continues to settle.



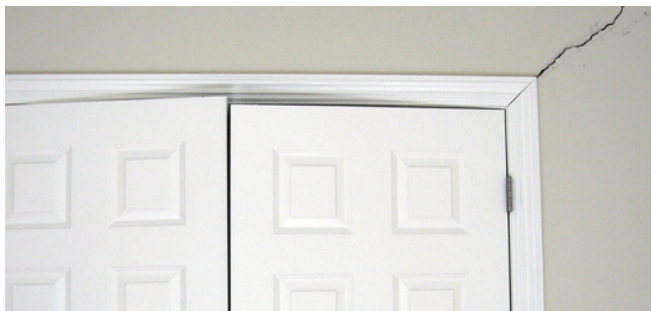
SAGGING FLOORS

Uneven floors can be caused by sinking or heaving of the foundation due to settling or expansive soils. Over time, these problems can significantly damage your home.



SHEARING WALLS

Whether it's "just a little" or a few inches, shearing is urgent. Often, there will be stair-step cracking and visible water damage around the gaps shearing creates in the foundation.



STICKING DOORS AND WINDOWS

Sticking doors and windows are often one of the first signs of foundation settlement because even slight shifts in your home's foundation can throw off the alignment of the frame.



As the foundation settles unevenly, it causes the structure to twist or sink, making it harder for doors and windows to open and close smoothly. Homeowners sometimes apply caulk to fill the resulting gaps, but this only masks the symptom — not the underlying cause.



BOWING WALLS

Cracked and bowing basement walls can develop immediately following construction or years later as changes occur within the soils that surround your home.



DRYWALL CRACKS

Cracks in drywall are a common sign of foundation settlement and are very common above doorways and windows. The cracks may be most obvious in the upper levels of your home.

POWERBRACE™ |Wall Repair Solution



The PowerBrace™ wall repair system is designed to stabilize failing basement walls and potentially straighten them over time. Steel I-beams stabilize the wall in its current position without any further adjustment and can be installed year-round in just a day. The PowerBrace™ system can be tightened to straighten bowing or tilting walls over time.

How It Works



Bridge Bracket

- Workswithjoiststhatrun perpendicular to foundation wall
- Adjustablebracketallows for possible straighteningorrecovery over time



Lever Bracket

- Workswithjoiststhatrun parallel to foundation wall
- Adjustablebracketallows for possible straighteningorrecovery over time



Steel Beam

- Zincplatedcoatingwon't rust orweakeninhumidconditions
- Installedwhenexternal obstacles pose install issues

GEOLOCK® WALL ANCHORS |Wall Repair Solution



The GeoLock® Wall Anchor system is designed to permanently stabilize your foundation wall and, in many cases, straighten it over time. Earth anchors are placed in stable soil away from your foundation wall with minimal disruption to lawn and landscaping. The anchors are connected to galvanized wall anchor plates by long steel rods. Once tightened, the anchors hold the wall securely in position and can be tightened to straighten walls over time.

How It Works



Earth Anchor

- Grabs the soil between the anchor and your foundation, bringing your wall back into place as it is tightened



Galvanized Rods

- Driventhroughthewalltoconnect earthanchortointeriorwall plate



Wall Anchor Plate

- Canbetightenedtostraighten wall andbringitbacktoitsoriginal position

C-CHANNEL ANCHOR SYSTEM | Wall Repair Solution



The C-Channel Anchor system is designed to stabilize shearing block walls. Similar to the GeoLock® system, earth anchors are placed in stable soil away from your foundation wall with minimal disruption to lawn and landscaping. The anchors are connected by long, steel rods to the C-Channel beam, which is held against the bottom of the wall by a steel plate. Once tightened, the C-Channel beam holds the wall securely in position.

How It Works



Galvanized Rods

- Driven through the wall to connect earth anchor to interior C-Channel



Earth Anchor

- Grab the soil between the C-Channel and the foundation, stabilizing the wall as it is tightened



Bottom Bracket

- Holds C-Channel against the wall, preventing further shearing

EVERBRACE® | Wall Restoration System



The EverBrace® Wall Restoration System permanently stabilizes even the most extreme failing foundation walls and protects against future damage. Steel corrugated panels span between steel I-beams to strengthen the existing structure. A specialized rigid foam is injected behind the steel panels, filling voids between the existing wall and panels, transferring the load from the failing wall to the new support system.

How It Works



- Panels are customized to fit around windows, doors and other obstacles



- Steel trim covers edges and corners to create a finished look



- Components are zinc-coated to resist corrosion

PUSH PIERS | Foundation Settlement Solution



The Push Pier system is designed to permanently stabilize your home's foundation. In most cases, it can even lift it back to its original level. Galvanized steel tubes, are driven through steel foundation brackets using hydraulic pressure to reach load-bearing soil or solid bedrock. This method locks the piers into place so the weight of your home can be transferred through the bracket and piers, to the competent soil or bedrock beneath.

How It Works



Engineered Design

- Heavy-duty steel provides high capacity
- Round shaft resists bending



Underground System

- Concealed from sight
- Treats the problem at its source: the soil



Reaches Competent Soil

- Piers mechanically driven down to competent soil to stabilize home
- Can often lift foundation back toward level position

HELICAL PIERS | Foundation Settlement Solution



Helical Piers permanently stabilize your home's foundation and, in many cases, can even lift it back to its original level. Steel piers are mechanically screwed into the soil to the appropriate capacities and depths and connected to your home's footing using a heavy-duty steel bracket. Once the system is installed, your home's weight is effectively transferred through the bracket and piers to competent soil or bedrock, permanently stabilizing your home's foundation.

How It Works



Engineered Design

- Round shaft resists bending
- Heavy-duty steel provides high capacity



Underground System

- Concealed from sight
- Treats the problem at its source: the soil



Reaches Competent Soil

- Piers are hydraulically screwed down to competent soil to stabilize home
- Can often lift foundation back toward level position

SMARTJACK® |Floor Support System



The SmartJack® is a high-capacity adjustable steel pier designed to fix sagging floors. We use a solid base of engineered fill to strengthen weak foundation soil and place the weight of the home onto competent soil beneath. Heavy-duty, threaded rods allow adjustments that give a custom fit to each SmartJack® system we install.

How It Works



Engineered Fill

- Hole is filled with tightly compacted crushed stone
- Supports pre-cast aluminum base



Steel Column

- Supports loads of more than 60,000 lbs. when installed
- Custom-cut for every job



Adjustable Design

- Once the components are assembled and connected to the girder, the SmartJack® can be tightened into place

CARBONARMOR® |Basement Wall Repair Solution



The CarbonArmor® system permanently stabilizes your foundation walls using fiber reinforced polymers, which are ten times stronger than steel, yet flexible enough to contour tightly against your basement wall. Once in place and cured, the CarbonArmor® system stabilizes foundation walls and permanently protects them from further movement.

How It Works



Reinforced Fiber

- 10 times stronger than steel
- Flexible enough to contour tightly against your basement wall



Permanent Solution

- Ideal for quickly stabilizing bowing, cracked and leaning walls
- Fast, non-invasive



ArmorLock®

- Secures the CarbonArmor® to your rim joist and prevents the wall from tipping
- Combined with CarbonArmor®, this system permanently stabilizes your wall



When your crawl space is healthy, you can feel confident that the space beneath your home and the air your family breathes are healthy too.

Excess moisture is a common issue and can enter your home through the ground or the air. Dirt floors and vented crawl spaces invite moisture in, raising humidity levels and leading to mold, water damage, and poor indoor air quality. Blackburn Foundation Repair offers proven solutions to help eliminate these issues and restore your peace of mind. With the right fix from the right team, your crawl space — and your home — can stay strong and healthy for years to come.

WHERE TO LEARN MORE

Causes of crawl space damage, page 42.

Signs of crawl space damage, page 44.

Our solutions for crawl space damage, page 46.



WHY FIX YOUR CRAWL SPACE NOW?

Crawl space moisture problems never get better on their own, and the longer you wait, the more expensive they'll become to fix.

Resale value. Nobody wants to buy a house that has crawl space moisture problems.

Health issues. Moisture in your crawl space can cause mold that can lead to respiratory problems for you and your family.

Air quality. When warm air escapes your home's upper levels, the damp air from your wet crawl space is drawn upwards into your living areas.

Allergens. Dust mites and mold spores thrive in high humidity, absorbing moisture from the air. These common indoor allergens are among the leading triggers for allergy and asthma symptoms.

Damage to hardwood floors. Moisture in your crawl space can saturate the floors above, causing them to buckle and warp.

Crawl space problems have many causes, but most have to do with excess moisture finding its way into your home.



STACK EFFECT

Air is constantly moving between your crawl space and the rest of your home, driven by the “stack effect.” As warm air rises and escapes through windows, vents and cracks, it creates a vacuum that pulls air up from the crawl space. Along with it come odors, mold spores and dust mite waste — all of which end up in your living space.



VENTING

Crawl space vents often do more harm than good. They allow moisture, water and outside air to enter, leading to condensation on walls, floor joists and insulation. In fact, vents are one of the main contributors to elevated humidity levels in crawl spaces.



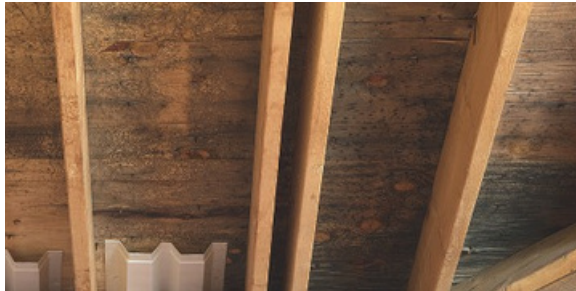
DIRT FLOORS

Water can leak through dirt crawl space floors and create serious moisture issues throughout your home. Plus, a dirt floor doesn't separate your home from the earth, allowing pests, moisture and mold to easily enter your home.



SETTLING DIRT

When a new home is built, loose soil is pushed back against the foundation walls. When this soil around your home settles, water can easily flow towards your foundation walls. Concrete, brick and stone walls are porous, allowing water to enter your home.



MOLD & MILDEW

Mold and mildew are two of the most visible signs of moisture in your crawl space, often appearing on floor joists and walls.



DAMP WALLS

Water can seep through cracks and pores in your crawl space's concrete walls, especially during heavy rain. Moisture entering around the edges of your foundation will naturally flow to the lowest parts of the crawl space, where it can collect and cause damage over time.



FALLEN INSULATION

Falling insulation is one of the easiest signs to spot moisture problems in a crawl space. Excess moisture can saturate the insulation, making it heavy enough to sag or fall from between the floor joists.



STANDING WATER

Standing water in your crawl space is a clear indicator that water is not draining away from the foundation. When water accumulates too quickly in your crawl space, it can cause a variety of problems.



POOR INDOOR AIR

Poor indoor air quality can be a sign of allergens like dust mites, mold spores and other contaminants in your crawl space. As air moves upward through your home, it pulls this polluted air into your living spaces.



EFFLORESCENCE

Efflorescence is a white, sometimes sparkly residue that appears on basement walls. It forms when water seeps through the concrete, then evaporates — leaving behind salt deposits.



SAGGING FLOORS

Excess moisture can weaken the floor joists beneath your home, causing floors to sag. This is often a sign of serious crawl space moisture problems that will only worsen if not addressed.



ROTTING WOOD

If you notice rotting wood in your crawl space, it's a clear sign of a moisture problem. When wooden beams or other structural materials begin to rot, it's critical to address the underlying issue right away to prevent further damage.

APRILAIRE E070 | Dehumidification



The Aprilaire E070 helps control excess moisture in crawl spaces, creating a drier environment and helping protect the home from humidity-related concerns. The Aprilaire E070 helps reduce excess moisture and musty odors, supporting a drier crawl space and healthier air throughout the home. Its compact design makes it a strong fit for crawl spaces where dependable humidity control is needed.

How It Works



Engineered Design

- Automatically monitors humidity and runs only when needed to help maintain drier crawl-space conditions.
- Automatic humidity sensor for effective control of excess humidity
- No messy trays or buckets of water to empty
- MERV 8 filter removes mold spores, dust mite droppings, dust and other particulates

CLEANSPACE® | Crawl Space Vapor Barrier



CleanSpace® is a heavy 20-mil thick liner that acts as a vapor barrier for your crawl space. It is used to isolate the home from the earth completely and permanently. CleanSpace® stops water vapor from permeating through the floor and walls. This washable liner is rip and tear resistant and adds a clean, bright, and usable storage space to any home.

How It Works



20-Mil thick liner

- Made of a high density polyethylene for puncture resistance, low density polyethylene for flexibility, and polyester cord



Antimicrobial

- Manufactured with integrated UltraFresh® additive so mold can't grow



Vapor barrier

- Stops water vapor from spreading through walls and sends leaks to the drain system
- Creates a usable storage space

TRIPLESAFE® SUMP SYSTEM |The World’s Most Reliable Pumping System



The TripleSafe® sump pump system keeps your basement dry with triple the protection of a normal pump.

A sump pump is a vital part of any basement water control system. But what happens when the pump fails, the power goes out, or if a single pump can’t keep up with the volume of water during a heavy rain? The TripleSafe® protects against all these problems and more! Removable lids for easy service. WaterWatch® alarm lets you know if there is an issue.

How It Works



Pump 1: Zoeller M-53 1/3 hp Pump

- Primary pump used when removing water
- Efficient and Reliable



Pump 2: Zoeller M-98 1/2 hp Pump

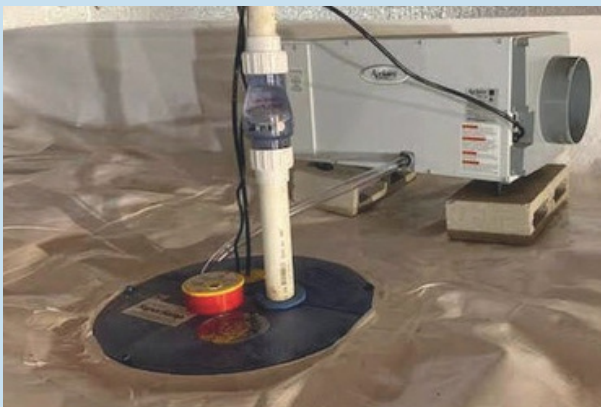
- Runs if primary pump fails, or if it can't handle the strong flow of water
- Both pumps remove 6,200 gallons of water each hour together



Pump 3: UltraSump Battery Backup Pumping System

- DC Operated Pump
- If power goes out, the power pack turns on the pump to remove water

SMARTSUMP® Crawl Space Sump Pump



The SmartSump® is built specifically for crawl spaces.

Its airtight lid directs water into an alarm pocket first, triggering the WaterWatch® alarm. Any excess water then drains through a one-way floor drain in the lid, where it’s pumped safely out of your crawl space.

How It Works



WaterWatch® Alarm

- Alarm sounds when the bottom is wet, alerting you of a leak
- Powered by a standard battery



Zoeller M-53 1/3 hp Pump

- Float-operated and fully submersible

SMARTDRAIN™ | Plumbing Leak System



The SmartDrain™ sits beneath your CleanSpace® liner, directing water to a drywell and sounding an alarm if a leak is detected. Its airtight lid blocks moisture from coming back up. A condensate line can be added for furnace or dehumidifier drainage.

How It Works



WaterWatch Alarm

- Alarmsoundswhenthebottomis wet, alerting you of a leak
- Powered by a standard battery

ULTRASUMP® | Battery Backup Pumping System



The UltraSump® provides peace of mind in the event of power outages and primary pump failures. This battery backup system will pump 12,000 gallons on a new power pack.

How It Works



DC Operated Pump

- Ifpowergoesout,thispumpturns on, powered by a power pack, to remove water
- Optionaldoublepowerpackconfiguration doubles water output
- Great for rural properties

DRAINAGE MATTING | Crawl Space Draining Channel



Tough and durable, Drainage Matting creates a drainage path and thermal break between the ground and the CleanSpace liner in your crawl space.

How It Works



Function

- Creates a channel for water to flow to the perimeter drain or sump pump
- Provides a comfortable surface to crawl on
- Adds durability and puncture resistance



Patented System

- Drainage matting paired with an encapsulation liner creates a patented moisture management system

SILVERGLO™ | Wall Insulation Panels



SilverGlo™ is a polystyrene foam insulation infused with graphite to boost its insulating power. It features a radiant heat barrier on the surface and delivers an R-11 insulation rating. By creating a vapor barrier along crawl space walls, SilverGlo™ helps keep moisture out — reducing the risk of mold, rot and musty odors.

How It Works



Radiant Barrier

- Reflects heat back into your crawl space for improved energy savings



Graphite Particles

- Reflects heat and increases insulation properties



Vapor Barrier

- Keeps moisture out of your crawl space
- Helps prevent mold, rot and musty odors

SMARTJACK® | Floor Support System



The SmartJack® is a high-capacity adjustable steel pier designed to stop settling and even raise your floor back up to where it was. We use a solid base of engineered fill to strengthen weak foundation soil and place the weight of the home onto competent soil beneath. Heavy-duty, threaded rods allow adjustments that give a custom fit to each SmartJack® system we install.

How It Works



Engineered Fill

- Hole is filled with tightly compacted crushed stone
- Supports pre-cast aluminum base



Steel Column

- Cut to the appropriate size to fit your home's needs
- Supports loads of more than 60,000 lbs. when installed



Adjustable Design

- Once the components are assembled and connected to the girder, the SmartJack® can be tightened into place.

MOLD-X2 | Concentrated Mold Cleaner



Our mold remediation process uses a powerful disinfectant with a fungicide to kill mold and mildew — and help prevent it from coming back.

How It Works



- Meets EPA standards
- Kills fungi, mold and mildew as well as common household germs

RIMTIGHT | Rim Joist Insulation



RimTight insulation seals and insulates your rim joist. Spray foam is the best product for difficult to reach and tight areas because it seals properly.

How It Works



- Reduces warm, humid air entering in summer, resulting in less condensation.
- Saves energy and lowers heating costs.



When concrete cracks, sinks or settles, it not only becomes a safety hazard but also a source of stress as you try to diagnose the problem, estimate costs and find the right contractor to fix it. Blackburn Foundation Repair provides lasting solutions that eliminate the guesswork and protect your investment. With the right fix from the right company, your concrete issues can be solved for good — ultimately giving you the peace of mind you and your family deserve.



WHY FIX YOUR CONCRETE NOW?

Concrete problems never get better on their own. And, the longer you wait, the more they will cost to fix down the road.

Resale Value. Nobody wants to buy a house that has a serious concrete problem.

Appearance. Concrete issues often include unsightly cracks and pitting, which can lower your home's curb appeal.

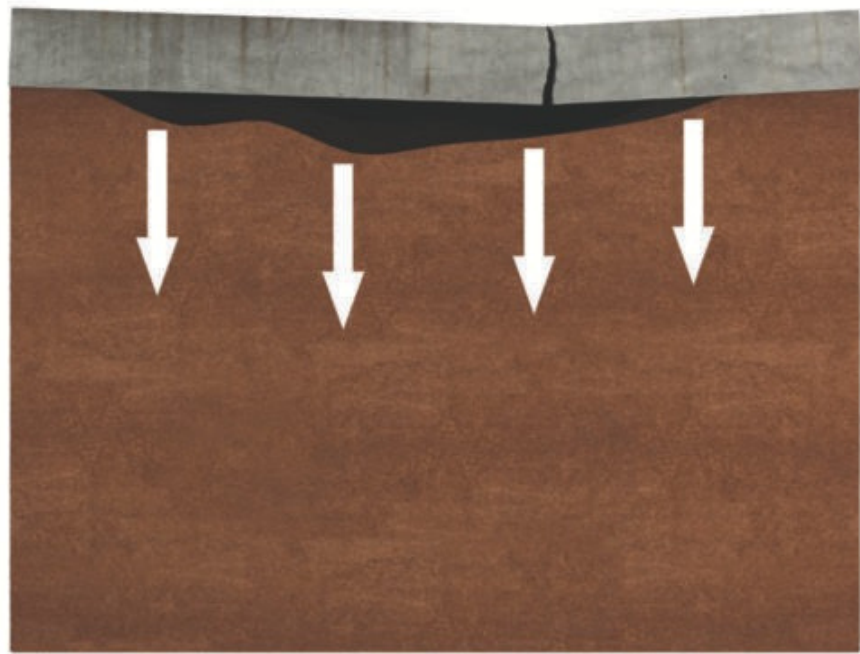
Water Intrusion. Cracks in concrete can let water underneath the slabs, softening or washing away the soil that supports them.

Safety. Settling concrete around your home can create significant trip hazards, putting you at risk of liability for injuries or accidents.

WHERE TO LEARN MORE

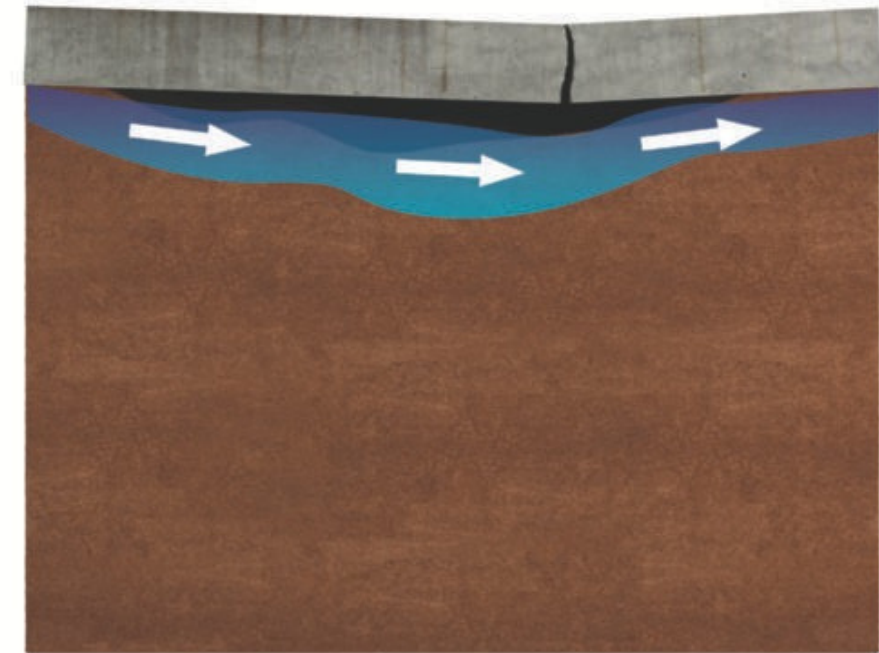
- Causes of concrete damage, page 58.
- Signs of concrete damage, page 60.
- Our solutions for concrete damage, page 62.

Concrete is very heavy! When the soil underneath a concrete slab can no longer support its weight, the slab sinks.



SOIL COMPACTION AND SOFTENING

When the soil under concrete can't support its weight, it compresses and settles. If part of the slab is supported but other parts are not, the unsupported part can crack, break away and sink, resulting in an uneven surface.



SOIL WASHOUT

Water moving through the ground beneath concrete can wash away the soil that supports it. As more soil erodes, empty spaces form under the slab — and over time, those gaps can cause the concrete to sink or even collapse.



SINKING SIDEWALKS

Sinking sidewalks are one of the most commonly seen concrete problems. They can create dangerous trip hazards, and left unaddressed, they will only get worse over time.



UNEVEN DRIVEWAYS

Uneven driveway slabs are a common issue for homeowners, often caused by the heavy weight of the concrete itself combined with the added pressure from parked and moving vehicles.



UNEVEN POOL DECK

Uneven concrete around your pool can cause significant trip hazards, putting you at risk of liability for injuries or accidents.



VOIDS UNDER CONCRETE

When the soil under a concrete slab softens or is washed away, it leaves an empty space or void. If left unaddressed, these voids cause the concrete above them to settle and sink.



CRACKED CONCRETE

Cracked concrete is often the first sign of a settling slab. As part of the slab loses support because the soil beneath has softened or washed away, it breaks off and sinks. These cracks only get worse over time.



SETTLING PORCH

A settling porch takes away from your home's curb appeal and gets worse over time. It can also create dangerous trip hazards for anyone entering or leaving the home.



SINKING STAIRS

Sinking stairs not only lower your home's curb appeal, but they can also create dangerous trip hazards for anyone entering or leaving your home.



SETTLING GARAGE FLOOR

Garage concrete slabs are prone to settling due to their size and the constant weight of vehicles that rest on them. This sinking often becomes visible along the bottom of the walls, just below the baseboard.

POLYLEVEL® Polyurethane Concrete Lifting



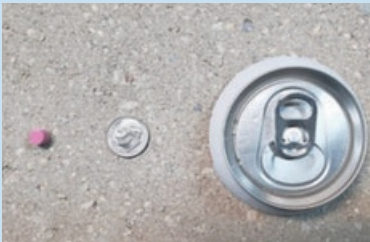
PolyLevel® is a high-density foam used to lift and stabilize sinking concrete. Installers drill small holes in the slab and inject the expanding foam underneath, filling gaps and raising the concrete back into place. It's fast, precise and long-lasting — and your driveway or sidewalk can be used just 15 minutes after the repair.

How It Works



High-Density Polymer

- Structural-grade polyurethane allows for the lifting of extremely heavy loads



Minimal Disruption

- Installation method requires only pencil-sized holes for injection (compared to 3" holes for other methods)



Effectively Lifts Settled:

- Driveways
- Sidewalks
- Porches
- Pool Decks
- Garage Floors
- Patios
- Stairs

NEXUSPRO® Concrete Crack Sealant



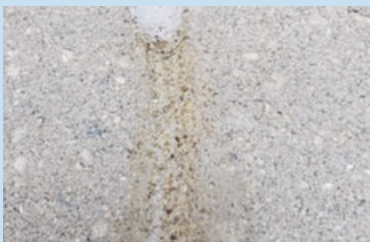
NexusPro® is a silicone-based sealant used to fill joints and cracks in concrete. It's specially designed to stay flexible and durable, even in extreme weather. Unlike traditional sealants, NexusPro® resists UV rays and won't crack, bubble or dry out over time. And because it's silicone-based, it cures much faster than standard caulking products.

How It Works



Silicone Based

- More flexible and durable than other sealants
- UV-Resistant



Blends With Concrete

- Long-lasting system will not breakdown
- Sand mixture is used to give the crack a seamless look



Fills and Seals Cracks In:

- Driveways
- Sidewalks
- Porches
- Pool Decks
- Garage Floors
- Patios
- Stairs

SEALANTPRO® |Concrete Sealant



SealantPro® is a long-lasting concrete sealant that protects surfaces from moisture, chemicals and weather damage. Applied in just one coat, SealantPro® prevents discoloration, flaking and cracking — extending the life of your concrete and improving curb appeal.

How It Works



High Durability

- UV-resistant and won't discolor over time
- Permanently protects with just one application



Stain Resistant

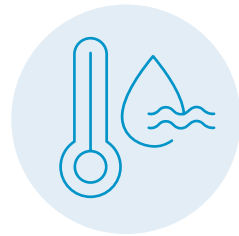
- Prevents liquid such as oil or gasoline from penetrating the surface



Long Lifespan

- Extends your concrete's life by up to five times, adding value to your home





Indoor air quality has a significant impact on your family's health, and radon is one of the most serious risks. South Dakota has the second-highest radon levels in the U.S., and this invisible, odorless gas is the second leading cause of lung cancer after smoking. A mitigation system vents radon safely outside, helping reduce your risk.

Other issues like high humidity, mold, dust mites and poor ventilation can also affect air quality. Dehumidifiers, air purifiers and proper ventilation work alongside a radon mitigation system to create a safer, healthier home.



WHY IMPROVE YOUR HOME'S AIR QUALITY NOW?

WHERE TO LEARN MORE

Causes of bad indoor air quality, page 68.

Our solutions for bad indoor air quality, page 70.

Radon isn't the only invisible threat inside your home — but it's one of the most dangerous. Every day you wait to act increases your family's exposure to harmful air pollutants.

Resale Value. Buyers are hesitant to purchase homes with radon issues or signs of mold, high humidity or poor ventilation. Addressing these concerns now protects your investment.

Safety. Radioactive radon gas is the second leading cause of lung cancer. Other air quality issues — like mold spores, dust mites and allergens — can trigger asthma and respiratory problems.

Comfort. Excess humidity or musty odors can make your living space uncomfortable year-round. Air quality upgrades create a fresher, healthier environment.

Peace of Mind. Professional systems monitor and treat air quality around the clock, so you don't have to wonder whether your family is breathing safely.

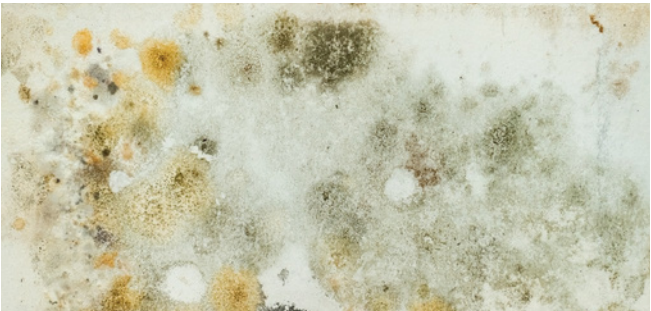
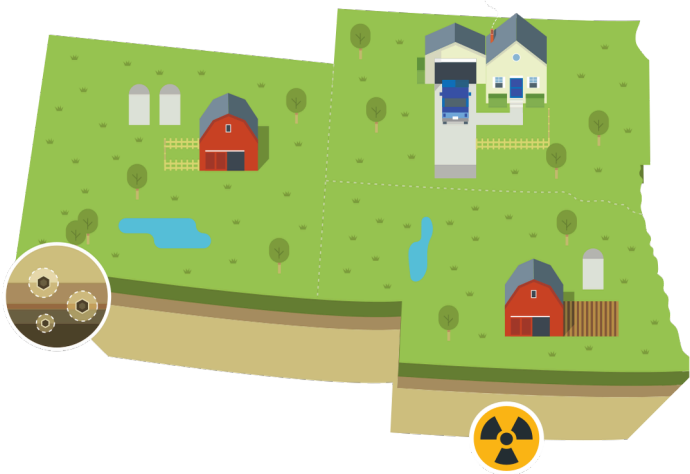
MOISTURE

Moisture from the earth around the home naturally passes through foundation walls and floors and seeps into the home. As it does, anything that is laid on the walls and floor, including carpet, wood, and drywall, will become damp and a happy home for mold.



RADON

Radon is invisible, odorless and tasteless. It can only be detected by testing with specialized equipment. Don't wait until you're forced to mitigate when selling your home. Take action now to protect yourself and your family from the dangers of radioactive radon gas.



MOLD

Mold thrives in dark, moist environments where organic materials are present. This is the reason why basements and crawl spaces are perfect places for mold to grow.



DUST MITES

Dust mites grow and spread at an alarming rate in every household - no matter how clean it is. Dust mites can grow from eggs to adults in a single month.



HUMIDITY AND ALLERGENS

Humidity creates a breeding ground for mold that can trigger allergies, respiratory problems and worsen asthma.



DRY ROT

One of the most damaging forces on household wood in the world is dry rot. Approximately 20 billion board feet of timber is destroyed by wood rot in the United States each year.

RADON MITIGATION



Radon Mitigation systems are tailored to fit the structure of your home. The right solution depends on whether your home has a basement, crawl space or slab foundation. Each requires a different approach, but most systems follow a few standard steps.

How It Works



Redirecting the Radon

- A hole is drilled to create a suction point, allowing radon gas to be vented through a connected PVC pipe. The pipe runs either through the home or along the outside.

Vented Out and Away From the Home

- The pipe is connected to a fan in the attic or to the top of the home for proper ventilation.



Sealing Entry Points

- Cracks are sealed using a urethane caulking compound.

APRILAIRE | Dehumidifier



Aprilaire dehumidifiers provide dependable moisture control for basements, crawl spaces and the rest of the home. The system automatically removes excess moisture from the air to help maintain a healthier humidity level. Controlling humidity can reduce musty odors, condensation and the conditions that allow mold and dust mites to thrive—helping make the home drier, healthier and more comfortable.

How It Works



Benefits of Humidity Control

- Automatic Operation: Monitors humidity and runs only when moisture control is needed. **Drier, Healthier Air: Helps reduce dampness, musty odors and condensation.**
- Low-Maintenance Comfort: **Drains automatically, so there is no water bucket to empty.**



- Pulls humid air into the unit and removes excess moisture.
- Helps protect the home from moisture-related damage.
- Supports a more comfortable indoor environment.

APRILAIRE E070 | Dehumidification



The Aprilaire E070 is designed to help manage humidity in crawl spaces, supporting drier conditions and healthier air throughout the home.

The Aprilaire E070 helps reduce excess moisture and musty odors in crawl spaces, supporting drier conditions and healthier air throughout the home. Its compact design makes it a strong fit for crawl spaces where dependable humidity control is

needed.

How It Works



Engineered Design

- Automatically monitors humidity and removes excess moisture to help maintain comfortable conditions.
- Automatic humidity sensor for effective control of excess humidity
- No messy trays or buckets of water to empty
- MERV 8 filter removes mold spores, dust mite droppings, dust and other particulates

APRILAIRE E100 | Dehumidification



The Aprilaire E100 is a whole-home dehumidifier designed to control excess moisture in basements and other larger areas.

Automatic humidity control helps maintain comfortable conditions without the daily attention required by a portable dehumidifier. A professionally installed drainage connection also eliminates the need to empty a collection bucket.

How It Works



- Built-in defrost system is designed to operate down to 40F. Will not freeze in basement conditions
- Controlled by a dehumidistat with digital settings and a variable setting range from 45% to 90%
- Plugs into a standard 15 amp, 115 volt outlet via 10 ft power cord
- A dedicated drain connection removes collected water automatically, eliminating the need to empty a collection bucket.

ASPEN AIR PURIFIER



The Aspen Air Purifier is the gold standard for the removal of air pollutants, capable of removing pollutants that are 10,000 times smaller than a human hair! It is the most effective air purifier in the world, and we have the testing to prove it.

How It Works



- Allergy Filter: Eliminates asbestos, mold, pollen, pet dander, dust mite droppings and more
- Activated Carbon Filter: Eliminates odors, formaldehyde, chemicals, tobacco smoke, VOCs and more
- Microparticle HEPA Filter: Eliminates 99.97% of particles as small as 0.1 microns, including viruses, bacteria, smoke, soot, smog, and more, with 40 square feet of HEPA filtration—nothing can get through



SERVICE DEPARTMENT

Even the best systems need routine care. Regular maintenance of your Blackburn Foundation Repair system helps prevent emergency service calls, ensures peak performance and extends its lifespan. Each annual visit includes a full inspection and a complimentary basement protection evaluation.



WATER CONTROL

- Cycle and watertest sump pump operations
- Clean sump system liner of sediment and silt, change battery in the WaterWatch® alarm
- Flush and flood test WaterGuard® system as necessary, evaluate discharge line(s) and potential for freezing

WALL STABILIZATION

- Re-tighten to appropriate torque
- Evaluate PowerBrace™ and/or GeoLock® wall anchor plates, benchmark the position of wall(s) at each location, remove excess anchor rod
- Perform an inspection of foundation, grading and gutters

DEHUMIDIFICATION

- Check relative humidity set point
- Inspect filter
- Clean heat exchange core and evaporator coil

WHAT OUR CUSTOMERS HAVE TO SAY!

★★★★★

"Lyndon was knowledgeable professional and personable. Took his time to explain everything to me. Definitely recommend." - Gabriel & Julia P.

★★★★★

"The folks at Blackburn are great to work with. They are friendly and knowledgeable and Elliot is a master of his trade." - Nathan B.

★★★★★

"Had a great experience with Devin and his crew! What we had discussed and I had been quoted for is what was done, in the time they said, at the price they said! What more could you ask for, really? They did their best to make a messy job clean, and limited what they had to do to the finished areas of my basement to get my waterproofing done. Great experience!" - Steven M.

★★★★★

"We appreciate the clarity and open dialogue regarding our foundation problem, cause, and options for stabilizing. Ryan thoroughly explained options and answered all our concerns." - Jeanine G.

★★★★★

"A+ experience today with rep Shawn. Very informative and understanding of what needed to be fixed and what options we had. Definitely would recommend." - Kason V.

Scan QR code to read more reviews.



REFERRAL PROGRAM

Referrals mean the world to us because they're the highest compliment we can receive. As a thank you, we'll send you \$50 for radon or concrete repair and \$100 for foundation repair, crawl space repair or basement waterproofing.

Here's how it works:

Have your friend or family member schedule an on-site estimate.

Be sure they include your name when they schedule the appointment.

Ask us for additional details.

BLACKBURN™
FOUNDATION REPAIR