

ROY'S HOME TIP'S AND ENERGY SAVING IDEAS



In-Wall Spring Wound Auto Shut Off Timer - 30 min.

These energy saving timers use no electricity to operate. These timers are designed to replace any standard wall switch, single or multi-gang, and automatically limit the ON time of fans, lights, motors, heaters and other energy consuming loads.

30-minute spring wound timer

Reduce your electric bill with these wall switch timers!

Save energy and money.



Energy Star Exhaust Fan - 90 CFM

A bath fan needn't call attention to itself, especially when you don't want to overpower the design of your bath or powder room. More important, it shouldn't call attention to itself on your electric bill. This is why Broan-NuTone developed the QTREN line of exhaust fans, which provide energy efficiency for the high-traffic bathroom.

- Extremely quiet operation: 90 CFM at 1.0 Sone
- Designed to meet Energy Star specifications.



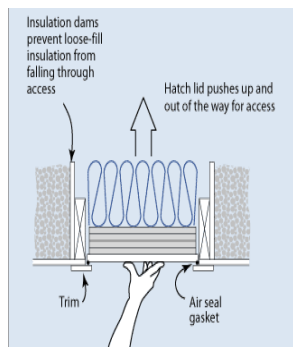
Ceiling Fan Tips:

Fans should be installed with the blades at least 30 cms below the ceiling, 200 cms from the floor and 60 cms from the nearest wall.

Air should be moved downwards from the ceiling in the summer to provide a cooling breeze on the room occupants.

If the fan is used in the winter, air should be moved upwards towards the ceiling to disperse the warm air that tends to accumulate there and distribute it more evenly in the room.

During the summer, switch the fan and light off when you leave the room. Fans don't actually cool a room, they just cool circulate the air.



ATTIC DOOR INSULATION:

Attic doors are a major source of heat loss in many homes. To stop the airflow, weather-strip the edges and insulate the back side of the attic door. Fold-down stairs can be covered with a lightweight box made of rigid insulation and weather-strip the edges to make an air tight seal.



How Much Slope is needed in Land Grading Near Home Foundations?

The consensus seems to be that a good slope to aim for when grading land extending out from a house foundation is 6 inches for the first 10 feet (that's a slope of 5 percent).

But how do you find the slope of a stretch of land, to begin with (so you'll know if the slope needs to be adjusted)? Rather than boring you with a fancy formula with "X" and "Y" in it, used to determine slope, let's take more of a hands-on approach to land grading.

To find the slope away from your foundation, you'll need

- String (at least 12 feet long)
- 2 stakes, and something to pound them into the ground
- String level
- Tape measure

How Much Slope?

Using the above supplies, take the following steps to determine if sufficient slope currently exists:

1. Tie one end of the string loosely around stake A.
2. Pound stake A into the ground right near your foundation
3. Slide the string down stake A, so that it rests at ground level
4. Tie the other end of the string loosely around stake B.
5. Now measure out 10 feet down the slope from stake A, and pound stake B into the ground there (if there's excess string, just wrap it around stake B). The string between the stakes should be fairly taut, but still adjustable.
6. Slide the string up or down stake B, so as to make it roughly level.
7. Put the string level on the string, at about the mid-point between the stakes.
8. Now adjust the string up or down on stake B, so as to make it **exactly** level.
9. Measure the distance from the string on stake B to the ground. Is the measurement 6 inches or more?

Do You Need to Re-Grade the Land?

The slope measurement you just took will determine whether or not you need to re-grade this land:

- If the measurement is 6 inches or more, you have a perfect slope -- no need for land grading here!
- If not, you'll need to re-grade the land by adding fill near the foundation and tamping it down; after which you can check the **new** slope by repeating the steps above.

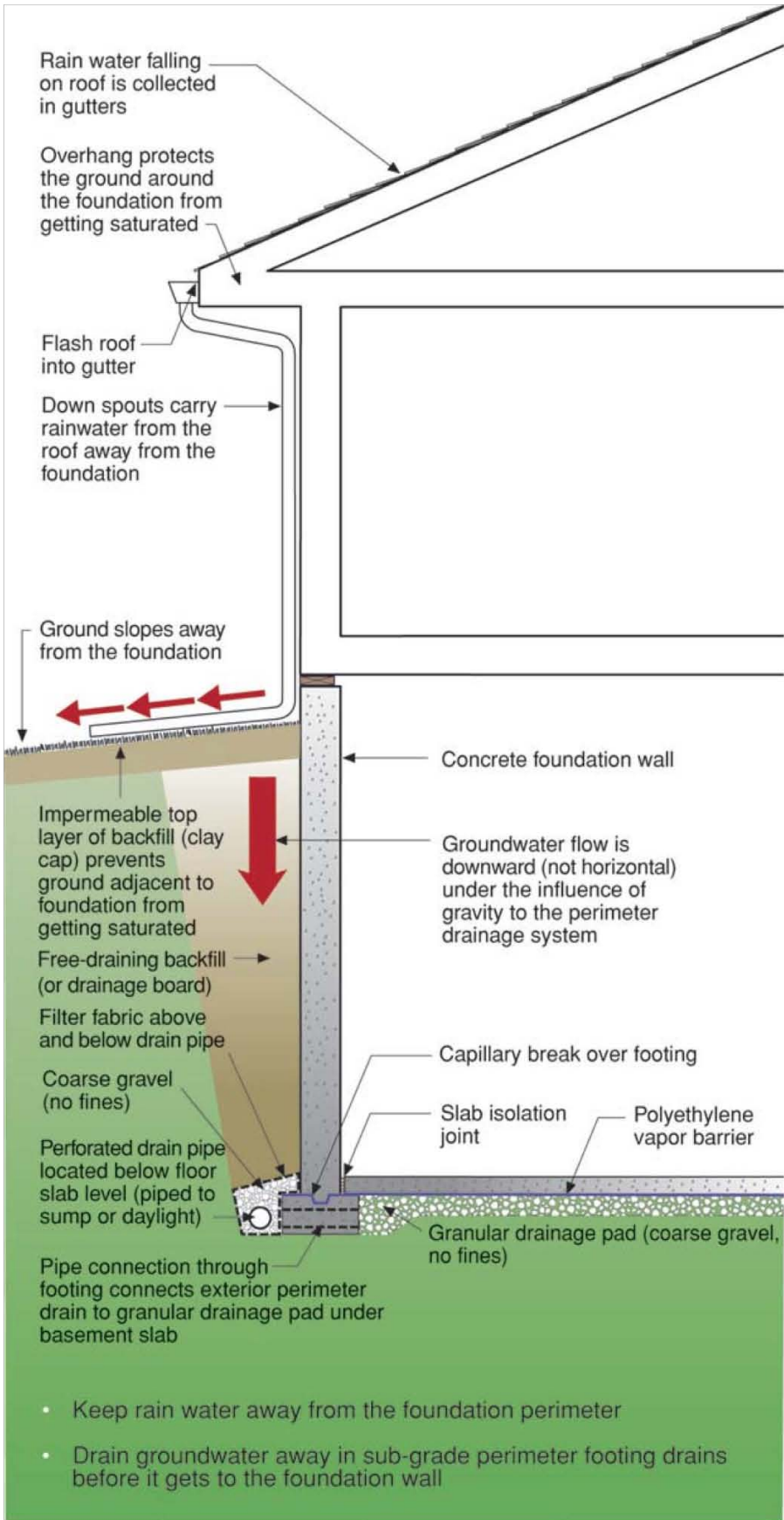


Figure 2: Traditional Approach to Basement Water Control



Hot Water Tanks "Buying or Renting?"

DO THE MATH!

If you're renting your hot water tank, you are paying "TOO MUCH" for your hot water. You don't rent your stove, you don't rent your fridge, quit renting your hot water tank.

Here's the reason you should not be renting your hot tank.

Common Sense Education.

"TO BUY"

The average installed Power vented 50 gallon natural gas or propane water heater installed is \$1700.00*

"RENTAL"

\$ 23.00 per month x 10 years = \$ 2,760.00** *

\$ 23.00 per month x 15 years = \$ 4,140.00** *

"TEN & FIFTEEN YEAR SAVINGS"

10 years - \$2760.00 - \$1700.00 = **\$1060.00**

15 years - \$4140.00 - \$1700.00 = **\$2440.00**

** Rental Companies have an annual increase of 2.2%.

On most models last year it was 3.5%.

* Plus applicable taxes.

With owning your water heater you will also save the difference in taxes and over 15 years with the new HST will be approximately \$317.00 as well.

** If you are purchasing a home (New or Used) you are not bound on any rental water unit until you make your first payment, even if it is in the Purchase and Sale agreement. Please call for information on how you can get out of any rental water heater before you make your first payment.



Choosing a Dehumidifier

Dehumidifiers are used to remove moisture from indoor air. They are typically used to address moisture problems such as window condensation and comfort problems associated with high relative humidity. Dehumidifiers can also help keep a damp basement dry.

However dehumidifiers can be expensive to purchase and operate, and must be maintained to prevent other problems from developing.

This About Your House provides useful information that can be used to help you decide if you need a dehumidifier and how to choose one that meets your needs.

What Is Humidity?

Water comes in three forms: ice, liquid and vapour. Water vapour is a gas that easily mingles with air. Humidity is the amount of water vapour in the air. It is normally measured as relative humidity (RH). RH is a percentage that indicates the amount of moisture in the air relative to the maximum amount the air can hold at that temperature. For instance, when air at a given temperature contains all the water vapour it can hold at that temperature, it has a RH of 100 per cent. If the humidity exceeds 100 per cent, moisture will begin to condense from the air. If the air contains only half the water it can hold at that temperature, the RH is 50 per cent.

How Do I Measure Relative Humidity?

An instrument called a “hygrometer” can measure the RH in your house. See [Measuring Humidity in Your Home](#) from CMHC’s About Your House series for more information about hygrometers, how to choose them and details on how to easily calibrate them to get readings you can use with confidence. Measuring the humidity in your home is an important first step in deciding if you need a dehumidifier.

Note that the relative humidity in your house varies from location to location. For example, the RH will be higher near a cold window than near a central wall, and even lower near a hot surface. If the relative humidity of the air next to the window is 100 per cent, you will see condensation on its surface. In areas like damp or wet basements, where moisture evaporates into the air, you will find a higher RH — even if the temperature is the same as elsewhere in the house.

See [Measuring Humidity in Your Home](#) for the recommended range of indoor relative humidity levels in your house. The fact sheet also explains where moisture comes from so that you can reduce moisture sources, especially when the use of a dehumidifier is not enough to adequately control indoor relative humidity.

Do I Need a Dehumidifier?

If you usually keep your house closed up in the summer and keep your air conditioner and ventilation system operating, check the indoor RH in various rooms throughout your house with a calibrated hygrometer.

If the relative humidity reads above 50 per cent, running a dehumidifier can take away the excess moisture. The highest RH will often be in the basement and, if that is the case, that is where you should put your dehumidifier.

If you open windows for ventilation in the spring, summer and fall, you will likely find the indoor RH on the upper floors of your house to be higher than 50 per cent. This will not cause problems such as dampness and comfort problems in the warmer parts of the year, but the house will accumulate moisture through the summer. That retained moisture can cause significant problems in the fall when you close the house up. You will have to reduce humidity aggressively during the few short weeks of dry fall weather through dehumidifier use and increased ventilation to avoid these problems.

For houses with no air conditioning, a basement dehumidifier can usually keep basement RH below 60 per cent preventing moisture and comfort problems.

When Is a Dehumidifier Not Enough?

If you have leaks through your basement or crawl space walls and floors or your basement is damp, then you have to correct the moisture problem first. If your windows show condensation even when all room RH levels are kept below 35 per cent, consider upgrading your windows to more energy efficient units as they are more condensation resistant. Using a dehumidifier may not be enough to solve such problems.

How Do Dehumidifiers Works?

There are a number of different ways that dehumidifiers remove water from the air. Some of the most common are listed below, along with their limitations.

Heat-pump Dehumidifiers

Heat-pump dehumidifiers are the most common. They are relatively complex machines that have a heat pump; two sets of coils; a motor-fan that moves air through it; a control system and panel; and a water bucket and drain system.

They cool incoming air to close to freezing, so that moisture in the incoming air is chilled to the point where massive condensation occurs on the first set of coils which dries the air passing through the dehumidifier. The condensation is collected in the bucket or automatically drained away.

The heat from the compressor is then transferred back into the air, making it somewhat warmer than when it came into the dehumidifier. If the dried air from the dehumidifier is mixed well within the room, the air throughout the room is dried out — that is, its relative humidity is lowered. If air from the room with the dehumidifier is circulated to all the rooms in the house, the air in the whole house will be somewhat dried. Over time this can significantly reduce the moisture content of the house and its materials.

Heat pump dehumidifiers can be relatively expensive if they are well built. They use a significant amount of electricity and they can be noisy. Having said that, heat pump dehumidifiers are the preferred way to remove moisture from indoor air. Air conditioners also remove some moisture from the air, but newer units are not as effective in that role as older models since they focus on reducing air temperature, not removing water.

Chemical Adsorbent Dehumidifiers

This type of dehumidifier is designed for hot, humid climates and is not really suited for use in most of Canada.

Chemical adsorbent dehumidifiers absorb moisture from the air with a “desiccant” — a drying agent such as silica gel. The desiccant is on a heat exchange wheel. A separate air loop dries the desiccant in the wheel and exhausts the hot, damp air outdoors through special ducting.

Dehumidifying Ventilators

This type of dehumidifier has an exhaust fan and sensor-controller. The sensor-controller is set to run when humidity rises to a programmed level. A dehumidifying ventilator is effective if installed in a basement or another room with a large moisture source.

Dehumidifying ventilators don't recover heat but they use less electricity than most heat pump dehumidifiers. They are not effective in hot, muggy weather, as they bring more humid outside air into the house and increase indoor humidity levels. They can be effective in cold weather. They may not be effective in lowering humidity in the spring and fall.

Caution: A dehumidifying ventilator depressurizes the basement, which can cause combustion gas spillage from fuel-fired furnaces and domestic hot water tanks. Make sure your heating contractor checks that your gas or oil furnace, water heater and wood-burning appliances can vent properly when the dehumidifying ventilator is operating. Consider using a carbon monoxide warning device if you install a dehumidifying ventilator. For more information, consult CMHC's About Your House fact sheets [Combustion Gases in Your Home](#) and [Carbon Monoxide](#).

Choosing a Dehumidifier

Total Costs of Humidity Control

The purchase price of your dehumidifier is only one of the many costs that you should consider when buying a unit for your house. For instance, the operating costs associated with the electricity consumed by dehumidifiers over the life of the unit can be the same as, or more expensive than, the purchase price. With the rising cost of electricity, operating costs are important to consider when making your decision.

However, if you do not get excessive indoor moisture under control, the costs of resulting damage and adverse health effects can be much higher than the costs of dehumidification.

Over the life of the unit you may also have to pay shipping costs while your unit is under warranty and all repair costs after the warranty has run out. Be sure that you know where warranty work will be done before you buy any appliance, especially one that uses a compressor. Choosing a unit with a low initial cost but a poor energy factor and short warranty could cost you considerably more in the long run.

Article from CMHC follow link for even more information on home moisture visit.

http://www.cmhc-schl.gc.ca/en/co/maho/yohoyohe/momo/momo_001.cfm

If you want more great information from the folks at CMHC use the links below to their website.

General Maintenance and Repair:

<http://www.cmhc-schl.gc.ca/en/co/maho/index.cfm>

(This first page is the page where all the links below were generated from. There are also more links there than I've posted here. But I felt some weren't of any use for Home Inspection Reports. But feel free to look around, as some might feel differently than me.)

Attic Venting, Attic Moisture and Ice Dams

http://www.cmhc-schl.gc.ca/en/co/mah...gemare_001.cfm

Avoiding Basement Flooding

http://www.cmhc-schl.gc.ca/en/co/mah...gemare_002.cfm

Home Maintenance Schedule (seasonal)

http://www.cmhc-schl.gc.ca/en/co/mah...gemare_003.cfm

Maintaining Your Heat Recovery Ventilator (HRV)

http://www.cmhc-schl.gc.ca/en/co/mah...gemare_004.cfm

Painting: Walls, Ceilings and Floors

http://www.cmhc-schl.gc.ca/en/co/mah...gemare_005.cfm

Removing Ice on Roofs

http://www.cmhc-schl.gc.ca/en/co/mah...gemare_006.cfm

Soot Staining on Carpets

http://www.cmhc-schl.gc.ca/en/co/mah...gemare_007.cfm

Your Furnace Filter

http://www.cmhc-schl.gc.ca/en/co/mah...gemare_008.cfm

Your Septic System

http://www.cmhc-schl.gc.ca/en/co/mah...gemare_009.cfm

Should You Get Your Heating Ducts Cleaned

http://www.cmhc-schl.gc.ca/en/co/mah...gemare_011.cfm

How to Read a Material Safety Data Sheet (MSDS)

http://www.cmhc-schl.gc.ca/en/co/mah...gemare_012.cfm

Your Home and Your Health:**Moisture and Mold****Moisture and Air: Householder's Guide — Problems and Remedies**

<http://www.cmhc-schl.gc.ca/en/co/mah...prre/index.cfm>

Choosing a Dehumidifier

http://www.cmhc-schl.gc.ca/en/co/mah...o/momo_001.cfm

Fighting Mold — The Homeowners' Guide

http://www.cmhc-schl.gc.ca/en/co/mah...o/momo_005.cfm

Measuring Humidity in Your Home

http://www.cmhc-schl.gc.ca/en/co/mah...o/momo_002.cfm

Should You Test the Air in Your Home for Mold?

http://www.cmhc-schl.gc.ca/en/co/mah...o/momo_006.cfm

The Importance of Bathroom and Kitchen Fans

http://www.cmhc-schl.gc.ca/en/co/mah...o/momo_004.cfm

Water Damage, Mold and House Insurance

http://www.cmhc-schl.gc.ca/en/co/mah...o/momo_007.cfm

Indoor Air Quality

Attached Garages and Indoor Air Quality

http://www.cmhc-schl.gc.ca/en/co/mah...inaiqu_010.cfm

Asbestos

http://www.cmhc-schl.gc.ca/en/co/mah...inaiqu_001.cfm

Carbon Monoxide

http://www.cmhc-schl.gc.ca/en/co/mah...inaiqu_002.cfm

Combustion Gases in Your Home — Things You Should Know About Combustion Spillage

http://www.cmhc-schl.gc.ca/en/co/mah...inaiqu_004.cfm

How to Get the Ventilation That You Need in Your House

http://www.cmhc-schl.gc.ca/en/co/mah...inaiqu_009.cfm

Urea-Formaldehyde Foam Insulation (UFFI)

http://www.cmhc-schl.gc.ca/en/co/mah...inaiqu_008.cfm

Energy Efficiency and Cost Savings:

Efficient, Convenient Wood Heating

http://www.cmhc-schl.gc.ca/en/co/mah...efcosa_001.cfm

Insulating Your House

http://www.cmhc-schl.gc.ca/en/co/mah...efcosa_002.cfm

Setback Thermostats

http://www.cmhc-schl.gc.ca/en/co/mah...efcosa_004.cfm

Photovoltaic (PV) Systems

http://www.cmhc-schl.gc.ca/en/co/mah...efcosa_003.cfm

How to Lock Out Crime:

How to Lock Out Crime: Home Security 101

http://www.cmhc-schl.gc.ca/en/co/mah...looucr_001.cfm

How to Lock Out Crime: Home Security — Exterior

http://www.cmhc-schl.gc.ca/en/co/mah...looucr_002.cfm

How to Lock Out Crime: Home Security — Alarms

http://www.cmhc-schl.gc.ca/en/co/mah...looucr_003.cfm

Home Security — Doors

http://192.197.69.104/en/co/maho/hol...looucr_004.cfm

Home Security — Windows

http://www.cmhc-schl.gc.ca/en/co/mah...looucr_005.cfm

Home Security — Patio Doors

http://www.cmhc-schl.gc.ca/en/co/mah...looucr_006.cfm

Home Security — Common Sense

http://www.cmhc-schl.gc.ca/en/co/mah...looucr_007.cfm

Water and Wastewater:**Reverse Osmosis — Water Treatment**

http://www.cmhc-schl.gc.ca/en/co/maho/wawa/wawa_001.cfm

UV Water Treatment

http://www.cmhc-schl.gc.ca/en/co/maho/wawa/wawa_002.cfm

Water Distillers

http://www.cmhc-schl.gc.ca/en/co/maho/wawa/wawa_003.cfm

Water Filters

http://www.cmhc-schl.gc.ca/en/co/maho/wawa/wawa_004.cfm

Water Softeners

http://www.cmhc-schl.gc.ca/en/co/maho/wawa/wawa_005.cfm

Landscaping:**Understanding and Dealing With Interactions Between Trees, Sensitive Clay Soils****and Foundations**

http://www.cmhc-schl.gc.ca/en/co/maho/la/la_003.cfm

For more information about these and other subjects
or to submit questions about your home visit us at:

Roy's House Talk

www.royshousetalk.com