OTTAWA FIREPLACES

Venting, Flues & Draft Issues

Chimney draft problems, venting configurations, flue sizing, and backdraft solutions in Ottawa

25 Expert Answers from Fireplace IQ

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Q1

What causes white rust on galvanized chimney pipe and how much does replacement cost for a wood stove in Ottawa?

White rust on galvanized chimney pipe is caused by zinc corrosion from moisture exposure, particularly in Ottawa's humid summers and freeze-thaw cycles. The white, powdery deposits you see are zinc oxide and zinc hydroxide forming as the galvanized coating breaks down, which compromises the pipe's structural integrity and creates potential safety hazards for your wood stove system.

In Ottawa's climate, galvanized chimney pipe faces unique challenges that accelerate this corrosion process. Our extreme temperature swings from -30°C winters to +35°C summers create constant expansion and contraction that stresses the zinc coating. More critically, condensation forms inside the pipe when warm, moist exhaust gases from your wood stove meet cold exterior temperatures - a daily occurrence during Ottawa's long heating season from October through April. This internal moisture, combined with creosote deposits that naturally occur from wood burning, creates an acidic environment that rapidly breaks down the galvanized coating. The problem is worse for wood stoves that frequently operate at lower temperatures during shoulder seasons, as cooler exhaust gases condense more readily.

White rust typically appears first at pipe joints, elbows, and where the chimney penetrates the roof - areas where moisture can collect or where the coating may have been damaged during installation. Once white rust begins, it spreads quickly and cannot be stopped or reversed. The affected pipe sections must be replaced, as the corrosion compromises both the structural integrity and the fire safety of your chimney system.

For wood stove chimney pipe replacement in Ottawa, expect to pay $2,000 to $4,500 for a complete system replacement with stainless steel pipe, depending on the height of your chimney and complexity of the installation. Single-wall stainless steel pipe costs $15 to $25 per foot, while double-wall insulated pipe runs $35 to $55 per foot. Most Ottawa installations require 15 to 25 feet of pipe from the stove to the chimney cap. Labour typically adds $1,200 to $2,500 to the project, as the work requires roof access, proper flashing installation, and WETT-certified expertise to ensure clearances and safety requirements are met.

Never attempt to repair white rust with paint or sealers - this creates a false sense of security while the underlying corrosion continues. The corroded pipe can fail catastrophically, potentially causing a house fire or carbon monoxide poisoning. When replacing galvanized pipe, always upgrade to stainless steel, which resists corrosion and handles Ottawa's temperature extremes far better than galvanized steel.

If you're dealing with white rust on your wood stove chimney, you can browse WETT-certified chimney professionals through the Ottawa Construction Network directory to get proper assessments and replacement quotes from experienced local contractors who understand the specific challenges of wood stove installations in our

climate.

Q2

How much does it cost to install a direct vent gas fireplace through an exterior wall in my Ottawa home?

Installing a direct vent gas fireplace through an exterior wall in Ottawa typically costs $3,500 to $7,500 for a standard unit, or $5,000 to $12,000 for a premium linear model. This includes the fireplace unit, direct vent termination kit, gas line connection, electrical work for ignition and blower, and professional installation by a TSSA-licensed gas fitter.

The direct vent configuration is ideal for Ottawa homes because it's completely sealed from your living space — combustion air comes from outside through the outer pipe of the coaxial vent, while exhaust gases exit through the inner pipe. This design maintains excellent indoor air quality and doesn't create negative pressure issues in your tightly sealed home during our long heating season. Direct vent units are also the most efficient gas fireplace option, converting 70 to 85 percent of the gas into usable heat rather than losing it up a traditional chimney.

Several factors affect your total cost in Ottawa. The fireplace unit itself ranges from $1,800 to $4,500 for standard models and $3,000 to $8,000 for premium linear units with advanced features. Installation labour typically runs $800 to $1,500, including cutting the wall penetration, installing the vent termination, and connecting the unit. If you need a new gas line run from your meter or existing line, add $500 to $1,500 depending on distance and complexity. Electrical work for hardwired ignition or blower fans adds $200 to $500. The vent termination kit costs $200 to $400, and you may need a hearth pad or wall protection depending on your unit's clearance requirements.

Timing matters significantly in Ottawa's climate. Schedule installation between May and October when contractors can safely work on exterior wall penetrations without weather delays. The vent termination must be properly sealed and flashed to prevent ice damming and water infiltration during our freeze-thaw cycles. Your installer must also ensure adequate clearance from windows, doors, air intakes, and property lines as specified by the Ontario Building Code.

All gas work must be performed by a TSSA-licensed gas fitter — this is Ontario law, not a suggestion. Unlicensed gas work voids your home insurance and creates serious carbon monoxide and explosion risks. After installation, the technician will tag your appliance with a compliance label and provide documentation for your records. Install carbon monoxide detectors on every level of your home, especially near sleeping areas.

When you're ready to move forward, you can browse TSSA-licensed gas fitters and fireplace installers through the Ottawa Construction Network directory to compare local professionals and get detailed quotes for your specific

installation.

Q3

My top-mount flue damper doesn't seal properly and I'm losing heat — what does replacement cost in Ottawa?

A top-mount flue damper that doesn't seal properly is costing you significant heat loss and money during Ottawa's long heating season, and replacement typically costs $800 to $2,000 installed depending on your chimney height and damper type. The old damper mechanism has likely warped from repeated freeze-thaw cycles or accumulated creosote buildup that prevents the seal from closing completely against the damper seat.

Top-mount dampers are particularly valuable in Ottawa's climate because they seal at the top of the chimney rather than at the throat damper location inside the firebox. This prevents the entire chimney from filling with cold air when the fireplace isn't in use, which can represent hundreds of dollars in heat loss over a winter. A properly functioning top-mount damper also keeps snow, rain, and animals out of your chimney while providing superior draft control when you are burning.

The replacement process involves removing the old damper assembly, cleaning the chimney crown surface, and installing a new top-sealing damper with a stainless steel cable that runs down to a handle inside your firebox. Quality top-mount dampers like those made by Lock-Top or Lyemance cost $300 to $600 for the damper itself, plus $500 to $1,400 for professional installation depending on chimney accessibility and height. Single-storey installations are less expensive than two-storey or steep-roof situations that require more complex roof access. The work should be done by a WETT-certified technician who can also inspect your chimney condition and ensure proper installation.

Don't delay this repair — a leaking damper in Ottawa's climate wastes substantial energy and allows moisture into your chimney system, which accelerates freeze-thaw damage to masonry and metal components. The installation is best scheduled during Ottawa's dry season from May through October when roof work can be completed safely.

If you need a qualified chimney technician for damper replacement, you can browse fireplace contractors through the Ottawa Construction Network directory to compare local professionals who handle this type of specialized chimney work.

Q4

Does a sealed combustion fireplace still need outside air in a tight new-build Ottawa home?

Yes — a sealed combustion (direct-vent) gas fireplace still needs outside air, but it draws that air directly from outdoors through a sealed duct rather than from the room itself, which is precisely why direct-vent units are the gold standard in tight, modern Ottawa homes.

Here's the critical distinction: a direct-vent fireplace has a sealed combustion chamber that pulls fresh air from outside through a dedicated intake pipe, burns the gas in that isolated chamber, and exhausts the combustion gases back outside through an exhaust pipe — typically both pipes run together through a single wall or roof penetration. The room air never enters the combustion process. This is fundamentally different from a B-vent (natural draft) fireplace, which draws combustion air from inside the house and relies on natural convection to push exhaust up the chimney. In a tight, well-insulated new-build Ottawa home, B-vent fireplaces can contribute to negative pressure problems — as the fireplace draws room air for combustion, it can depressurize the house, potentially causing backdrafting in other fuel-burning appliances like your furnace or water heater, or pulling cold outside air in through cracks and gaps.

Modern new-build homes in Ottawa — especially those built to current code or higher efficiency standards — are intentionally sealed tight to minimize heat loss during our brutal winters. This creates a controlled indoor environment, but it also means any fuel-burning appliance that consumes room air affects the whole-house pressure balance. A direct-vent fireplace eliminates this problem entirely because it is completely sealed from the living space. The outside air it needs comes through its own dedicated ducting, the flames never contact room air, and the exhaust never mixes with indoor air. You get the ambiance and supplemental heat of a gas fireplace without any impact on your home's air pressure, humidity, or ventilation strategy.

One practical consideration in Ottawa's climate: the intake and exhaust pipes for a direct-vent fireplace must be routed and terminated carefully to prevent snow accumulation from blocking the intake during our heavy winters. The termination cap should be positioned at least 12 inches above the finished grade and oriented to shed snow and ice. A poorly positioned intake that gets buried under a drift will starve the fireplace of combustion air and shut it down — not a safety hazard per se, but frustrating on a January evening when you want the warmth. A qualified installer will position these pipes thoughtfully to minimize snow entrapment, especially on the north or windward side of the house where drifts accumulate.

Direct-vent gas fireplaces in Ottawa typically run **$3,500 to $7,500 installed** for a standard unit, with premium linear models reaching **$5,000 to $12,000**. The sealed system and dedicated ducting add modest cost compared to a B-vent unit, but the investment is worthwhile in a tight new-build home because you avoid the pressure-balance

headaches and the performance is more reliable and efficient. Modern direct-vent fireplaces achieve 70 to 85 percent efficiency — significantly better than B-vent units at 60 to 70 percent — because the sealed combustion chamber minimizes heat loss and the intake air is already being warmed by the outgoing exhaust through a heat exchanger in some premium models.

If you are building or renovating a tight new-build in Ottawa and want a gas fireplace, direct-vent is the right choice. The outside air it requires comes through its own sealed duct system, your home's pressure balance remains undisturbed, and you get reliable, efficient heat without the complications that open-combustion units bring to modern, well-sealed homes.

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- 613Bins
- JC Carpentry
- Geerts Roofing Inc
- Jaiko Cleaning Services
- Core Climate Ltd.

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Q5

How much should I budget for a full stainless steel flue liner replacement on my Ottawa fireplace?

A stainless steel chimney liner replacement in Ottawa typically costs **$2,000 to $5,000 installed**, depending on your chimney height, liner diameter, and whether the existing chimney structure requires cleaning, repair, or reinforcement before the new liner goes in. Most Ottawa homeowners with single-storey homes and standard 8-inch liners fall in the **$2,500 to $3,500 range**, while two-storey homes or chimneys requiring additional work land closer to **$4,000 to $5,000**.

Why Stainless Steel Relining is Essential in Ottawa's Climate

Your chimney liner is under extraordinary stress in Ottawa's freeze-thaw cycles. The original clay tile liner in most older masonry chimneys cracks and separates over time as water penetrates mortar joints, freezes, expands, and

breaks the tiles apart from within. Once a clay liner fails, you've got a serious problem — combustion gases and heat can escape into the walls of your home, creating fire hazards and carbon monoxide risks. A stainless steel liner essentially creates a sealed, durable flue pipe inside the existing masonry chimney, protecting against moisture damage and ensuring safe venting for decades.

Stainless steel is the right choice for Ottawa because it handles freeze-thaw cycling far better than aluminum (which is only suitable for gas appliances) or cast-in-place cement liners. A quality 316-grade stainless steel liner will outlast multiple generations of homeowners if properly installed and maintained. The cost reflects both materials — stainless steel pipe is expensive — and labour intensity. Installing a liner involves measuring the chimney, running the liner up from the bottom (or sometimes from the top, depending on the situation), sealing it properly at the connection point, and ensuring the top of the liner is correctly capped.

What drives the cost variation: The biggest variables are chimney height (a three-storey chimney costs more than a one-storey because you're running liner up a longer distance), whether the existing chimney needs tuckpointing or internal cleaning before the liner goes in, whether the chimney crown or cap requires repair or replacement at the same time, and accessibility — a chimney on the rear corner of a complex roofline costs more to work on than one on a simple front wall. If your chimney has structural issues like spalling brick or deteriorated mortar, a WETT-certified inspector may recommend reinforcing the exterior before relining, which adds $500 to $2,000 to the overall cost.

Important considerations: Make sure any quote includes the liner itself, the installation labour, a proper cap or termination fitting at the top, sealing the liner connection at the firebox or appliance, and a compliance inspection or WETT documentation confirming the work meets code. Some contractors bundle chimney cleaning into the relining price; others charge separately ($175 to $350). Get written quotes from at least two WETT-certified chimney contractors that specify the exact stainless steel grade (304 or 316), liner diameter, and whether any structural repairs or additional work are included. Scheduling this work for spring (April through June) or early fall (August through September) is smart — you avoid the rush of November emergency calls and you give yourself a full heating season to verify the new liner is performing well before winter stress-testing it.

If you need to connect with experienced WETT-certified chimney professionals in Ottawa who specialize in stainless steel relining, you can browse fireplace and chimney contractors through the **Ottawa Construction Network directory** to find installers in your area and get specific quotes based on your chimney's actual condition.

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- 613Bins

- The Egress Group Inc
- BFI Renovations
- Ottawa Heating Cooling Repair
- Denys Builds Designs Renovations

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Q6

My range hood seems to pull smoke back into the room when the fireplace is going — what causes this in Ottawa houses?

You're experiencing **negative pressure backdraft**, and it's one of the most common and potentially dangerous fireplace problems in modern Ottawa homes. When your range hood (or bathroom exhaust fan) runs, it pulls air out of your house faster than makeup air can replace it, creating a low-pressure zone that can reverse the natural draft of your fireplace and pull smoke, ash, and dangerously high levels of carbon monoxide back into your living spaces instead of up the chimney.

This problem is especially prevalent in Ottawa because our houses have become dramatically more airtight over the past 20 years. Modern homes are insulated, caulked, and sealed for energy efficiency in ways that older homes simply weren't — which is excellent for heating bills during our brutal winters, but it also means the house has very few uncontrolled air leaks to provide makeup air. When you simultaneously run a fireplace (which needs air to burn and draft properly) and exhaust appliances like range hoods, bathroom fans, or clothes dryers (which all pull air out), you're creating a pressure imbalance that the fireplace can't overcome.

The severity of the problem depends on several factors. **Kitchen range hoods are typically the worst culprit** — a high-end range hood can move 600 to 1,200 CFM (cubic feet per minute) of air, which is enormous in a sealed home. A bathroom exhaust fan moves 50 to 110 CFM. A clothes dryer vents 4,000 to 6,000 CFM when running. If your dryer is vented inside (rather than to the outdoors, which it should be), or if you're running multiple exhaust appliances simultaneously while the fireplace is burning, the negative pressure can become severe enough to pull smoke visibly into the room — that's a clear warning sign that your house has become too depressurized to safely operate the fireplace.

Here's what's happening physically: Your fireplace chimney relies on buoyancy and draft — warm exhaust gases naturally want to rise and exit through the chimney. The pressure inside the home needs to be slightly higher than the pressure at the base of the chimney for this natural draft to work. When a range hood is running hard, it creates negative pressure (the house is now at lower pressure than the outside air), which means the pressure at

the base of the chimney is actually *lower* than the pressure in the room. This pressure difference reverses the draft — instead of hot exhaust rising up and out, room air gets pulled toward the chimney opening, often carrying smoke with it.

Ottawa's climate amplifies this problem. In winter, when it's -25 degrees outside and you're heating your house to +22 degrees, the natural draft in your chimney is strongest (the temperature difference creates powerful buoyancy). But this same temperature difference also makes your sealed home feel even more negative when you run exhaust fans — the pressure imbalance becomes more noticeable and more dangerous. In shoulder seasons (April-May and September-October) when you might run the fireplace but also open windows or operate the range hood, the problem can vary day to day.

Solutions exist, and they range from simple to more involved:

The most straightforward fix is to **stop running exhaust appliances while the fireplace is actively burning.** This is not practical as a permanent solution if you enjoy using your range hood while cooking, but it's a crucial starting point — if backdraft stops the moment you turn off the range hood, you've confirmed the diagnosis. Many Ottawa families with this problem simply avoid using the fireplace and range hood simultaneously, which isn't satisfying if you want to use the fireplace regularly.

Opening a window near the fireplace provides makeup air and can sometimes stop backdraft, but this defeats the purpose of heating efficiency in a sealed home, especially during Ottawa's cold months. You're essentially heating the outdoors. However, cracking a window an inch or two while the fireplace is running can be a quick diagnostic test.

A dedicated makeup air system is the proper long-term solution. This involves installing a duct that brings outside air directly into the home near the range hood or fireplace, allowing exhaust appliances to run without creating negative pressure. The makeup air inlet should ideally be on the opposite side of the house from exhaust vents to create balanced airflow. Costs for a basic makeup air installation in Ottawa run $1,500 to $3,500 depending on duct routing and whether dampers or fans are needed. This is especially important if you have a gas range, because gas combustion requires substantial air, and backdraft can introduce carbon monoxide into your living spaces.

For gas fireplaces specifically, a **direct-vent gas fireplace is immune to this problem** because it draws combustion air directly from outside through a sealed, double-wall vent pipe and is completely isolated from the house's interior air pressure. If you're installing a new fireplace and negative pressure is a known concern in your home, direct-vent gas is the answer. Costs for a direct-vent unit in Ottawa run $3,500 to $7,500 installed. If you have an existing B-vent (natural draft) gas fireplace, it will always be vulnerable to negative pressure backdraft if your home is tightly sealed.

For wood stoves and wood-burning fireplaces, the situation is more serious because wood-burning appliances produce carbon monoxide, which is odourless and deadly. Persistent smoke blowback or backdraft from a wood stove is a safety emergency — it means carbon monoxide is being pushed into your living space instead of up the chimney. A WETT-certified chimney inspector ($250 to $450 for a Level 1 inspection in Ottawa) should evaluate your chimney height, clearances, and draft performance to rule out other problems (undersized chimney, blockages, poor cap design, or external pressure issues from nearby trees or buildings). But if the chimney itself is sound and the problem only occurs when exhaust fans run, you need either a makeup air system or to stop running fans while the fireplace is burning.

One more diagnostic step: Check whether your chimney has a **barometric damper or draft regulator.** Some older fireplaces and wood stoves have these devices, which are designed to help maintain positive pressure in the chimney. If yours is stuck, blocked, or improperly adjusted, it can contribute to backdraft problems. A WETT-certified technician can assess whether your draft regulator is functioning correctly and whether it should be adjusted or replaced.

The bottom line for Ottawa homeowners: negative pressure backdraft is real, it's dangerous (especially with combustion appliances that produce carbon monoxide), and it's becoming more common as homes become more tightly sealed for energy efficiency. The solution is either to separate the use of your fire

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- JC Carpentry
- Leeds Property Maintenance
- Gillani Heating & Appliance Care Inc.
- Eastern Residential Solution

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Q7

Can two fireplaces safely share one chimney flue or does Ontario code require separate liners?

Two fireplaces or wood-burning appliances should **never share a single chimney flue in Ontario**, and the Ontario Building Code explicitly prohibits this configuration. Each fireplace, wood stove, or gas insert must have its own dedicated, independently vented chimney liner or flue system. Sharing a single flue creates serious risks of downdraft, backdrafting of combustion gases into the home, and cross-contamination of air flows — any of which can result in carbon monoxide poisoning or chimney fires.

Why This Matters in Ottawa's Climate

Ottawa's extreme freeze-thaw cycles and the way our cold valley air behaves in winter make chimney performance even more critical than in milder climates. When two appliances try to share one flue, they are competing for draft. If one appliance is running and the other is not, the inactive flue becomes a source of cold air infiltration and back-drafting — warm air and combustion gases from the active appliance can be drawn down the inactive flue, pulling cold outside air and moisture into your home. In Ottawa, where we routinely see -25 to -30 degree temperatures and significant snow loading on roofs, this creates ice damming, interior condensation, and accelerated deterioration of both the chimney and the home's interior walls.

The Ontario Building Code Section 2.2.3.2 specifies that each fuel-burning appliance must have either its own independent flue or a listed manifold system specifically designed to safely combine multiple vents. A "listed manifold" is a factory-engineered piece of equipment that safely manages airflow from multiple appliances — it is not simply two pipes joining into one. These systems are extremely rare in residential applications and are usually found only in commercial or multi-unit buildings.

If you have two fireplaces or stoves in your Ottawa home, each must have its own completely separate chimney liner running from the appliance to the top of the roof. If your chimney is a masonry structure with multiple flues (separate internal channels within the same external structure), that is perfectly acceptable — each flue serves one appliance independently. But a single flue with two appliances venting into it is a code violation and an insurance nightmare.

The Practical Reality

This question often comes up in Ottawa homes where someone is adding a wood stove to a kitchen or basement and wants to vent it through an existing fireplace chimney in another room. The answer is always: you need a separate chimney for the wood stove, or you need to accept that only one appliance will be in active use at a time. Some homeowners in older Ottawa homes have attempted to use dampers or T-pipes to "share" chimneys

between two appliances — this does not meet code, will not pass a WETT inspection, and your insurance company will deny a claim if something goes wrong.

If you are installing a second fireplace or stove in your Ottawa home and space or cost constraints make a second chimney seem impossible, the practical options are: (1) choose one appliance and abandon the idea of a second one, (2) install a gas fireplace as the second appliance and run it through a separate direct-vent or B-vent line that does not share any component with the wood-burning flue, or (3) accept a higher installation cost and build or line a second chimney. In some older Ottawa homes with internal chimneys, there may be concealed unused flues — a WETT inspector or experienced chimney contractor can help determine whether a second existing flue can be reclaimed and safely used for a second appliance.

Important warning: Do not attempt to connect two appliances to one flue and hope a damper system will manage the airflow. Carbon monoxide does not care about your damper logic — it will find its way into your home, and you may not smell or detect it until someone is seriously ill or dead. This is not an area where creative solutions or cost-cutting are acceptable.

If you are considering adding a second fireplace or wood stove to your Ottawa home, a WETT-certified contractor or experienced fireplace installer can assess your existing chimney system and advise whether a second chimney is feasible, what it will cost, and whether separate gas and wood appliances might be a better fit for your space and budget. You can browse fireplace contractors through the Ottawa Construction Network directory at justynrookcontracting.com/directory — they can give you a realistic sense of what a second chimney installation would involve in your specific situation.

Looking for experienced contractors? The Ottawa Construction Network connects Ottawa homeowners with qualified professionals:

- 613Bins
- RenoMotion Inc.
- ARTEXPRO Tile & Finishes
- Gillani Heating & Appliance Care Inc.
- Demontigny Carpentry

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Q8

What's the price to convert my older fireplace to a sealed combustion direct vent system in Ottawa?

Converting an older open masonry fireplace to a sealed combustion direct-vent system in Ottawa typically costs **$3,000 to $7,000 installed**, depending on whether you're installing a gas insert into the existing firebox or removing the old fireplace entirely and building a new installation from scratch.

Understanding Your Conversion Options

The most common and cost-effective approach is installing a **direct-vent gas fireplace insert** into your existing masonry firebox. This option runs **$2,500 to $5,500 installed** and preserves the aesthetic appeal of your original fireplace while converting it to a sealed, efficient heating appliance. The insert sits inside the existing opening, and a stainless steel double-wall vent pipe is run through the chimney or through the exterior wall to the outside. This is a much faster project than full removal and rebuilding.

If your existing chimney is severely deteriorated, blocked, or cannot safely accommodate a vent pipe — a common situation in Ottawa given our brutal freeze-thaw cycles — you may need to abandon the old firebox entirely and install a new direct-vent gas fireplace against the same wall or in a new location. This full conversion runs **$5,000 to $7,500 installed** and includes demolition of the old fireplace, new gas line installation, framing for the new unit, drywall, finishing, and the complete venting system.

Why This Matters in Ottawa's Climate

Open masonry fireplaces lose 85 to 90 percent of their heat straight up the chimney — you are essentially paying to heat the outdoors. A sealed direct-vent system recovers 70 to 85 percent of the heat from combustion, meaning you actually get warm air into your living space rather than watching it escape. In Ottawa winters that regularly hit -25 to -30 degrees Celsius, this efficiency difference translates to real dollars saved on heating over the life of the appliance.

The conversion also addresses one of Ottawa's most persistent fireplace problems: water infiltration through the chimney crown and mortar joints. An older masonry chimney that has been exposed to decades of our freeze-thaw cycles often has cracks and deteriorated mortar that allow water into the structure. When you seal that chimney off and eliminate the draft, you stop water from being drawn through the chimney interior, which prevents further damage and eliminates the risk of water leaking into your walls or basement during heavy rains and spring melt.

What's Actually Included in the Cost

The **$2,500 to $5,500 insert price** includes the gas insert unit itself, installation labour, the direct-vent termination kit (the elbows and cap that go through your wall or up through the chimney), hearth protection if needed, gas line

connection, and a TSSA compliance tag from a licensed gas fitter. Some contractors include a basic surround trim package; others charge $300 to $800 extra for finish trim around the insert opening.

The **$5,000 to $7,500 full conversion price** adds demolition of the old fireplace, removal of damaged masonry if necessary, new framing studs, drywall installation and taping, paint or finishing to match your wall, a new gas line run from your main or existing line, proper venting termination, hearth pad installation, and all labour. If you want a stone or tile surround to match the aesthetic of the original fireplace, add **$2,000 to $4,000** more.

Important Considerations

TSSA licensing is non-negotiable. Any gas work — including running the gas line and connecting the insert — must be performed by a TSSA-licensed gas fitter (G2 or G3 certificate). After installation, the insert must be tagged with a TSSA compliance label. If your home insurance company discovers unlicensed gas work, your policy can be cancelled. Unlicensed gas work is also illegal in Ontario.

Your existing chimney's condition matters enormously. If your chimney is sound and can accommodate a vent pipe through its interior, the insert option is straightforward. If the chimney has extensive spalling, a severely deteriorated cap, or is blocked with debris or soot buildup, a WETT-certified chimney professional needs to inspect it before you commit to an insert. You may discover the chimney needs relining ($2,000 to $5,000) before venting through it is safe — in that case, venting through the exterior wall becomes the better option.

Timing matters in Ottawa. Schedule this work for spring (April through May) or early fall (September through October). Gas line work and TSSA inspection can happen any time, but if exterior venting work is required, the outdoor portion should be completed before deep winter arrives.

Permits and inspections are required. The City of Ottawa requires a building permit for fireplace removal and new installations. After the work is complete, a TSSA inspection is mandatory for any gas appliance, and you should request a Level 1 WETT inspection for insurance purposes — typically **$250 to $450** — to document that the entire system (including clearances to combustibles and hearth protection) meets code.

When you're ready to get quotes, ask each contractor whether they are TSSA-licensed, whether their price includes the TSSA compliance tag, and whether they handle the building permit application or if you need to apply yourself. You can browse fireplace conversion specialists through the Ottawa Construction Network directory at justynrookcontracting.com/directory to compare local contractors and view their experience with direct-vent conversions in the Ottawa area.

Looking for experienced contractors? The Ottawa Construction Network connects Ottawa homeowners with qualified professionals:

- Justyn Rook Contracting
- RenoMotion Inc.
- Best Hand2Hand moving company
- SDR Electric, Plumbing & Heating Inc.
- Leeds Property Maintenance

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Q9

Do I need a makeup air kit for my gas fireplace if I also run a big range hood in my Ottawa home?

The short answer is: it depends on your home's tightness and your gas fireplace type, but in Ottawa's climate, a makeup air kit is a smart precaution if you run a powerful range hood and have a direct-vent gas fireplace — and it's essential if you have a B-vent unit.

Here's why this matters specifically in Ottawa. Modern Ottawa homes, especially those built in the last 15 to 20 years, are increasingly well-sealed for energy efficiency. This is great for keeping heating costs down during our brutal winters, but it creates an indoor air pressure problem that earlier, leakier homes never had to worry about. A powerful range hood — the kind rated at 400 CFM or higher that's common in updated kitchens — can create negative pressure in your home by pulling a large volume of air out of the house. If your gas fireplace is a direct-vent unit (which draws combustion air from outside through a sealed pipe and exhausts through a separate sealed pipe), negative pressure is less of a concern because the fireplace isn't competing with the hood for indoor air. But if you have a B-vent gas fireplace (which draws combustion air from inside your home), a powerful range hood running simultaneously can create what's called backdrafting — the negative pressure forces combustion gases, including carbon monoxide, back into your living space instead of up the vent pipe.

A makeup air kit is a dampered duct that brings fresh outside air into your home to replace the air the range hood exhausts, equalizing pressure and preventing backdrafting. In Ottawa, makeup air kits typically cost $300 to $800 installed, depending on whether the ductwork requires routing through finished spaces or can run through existing cavities. The kit includes an outdoor damper hood (to prevent cold winter air from flowing backward when the range hood is off), internal damper, and ducting back to the kitchen or main living area. Many setup integrate the makeup air inlet into the return air system of an existing HVAC system, which also filters and conditions the incoming air — a practical advantage during Ottawa winters when bringing in raw -25 degree air is uncomfortable without tempering.

If you have a direct-vent gas fireplace, you may not absolutely need a makeup air kit, but it's still worth considering if your range hood is very powerful (500+ CFM) or if you plan to run the hood frequently while the fireplace is operating. The extra cost of a makeup air kit is cheap insurance against creating negative pressure problems. If you have a B-vent gas fireplace, a makeup air kit is highly advisable — running a powerful hood without makeup air essentially creates a vacuum that can pull dangerous combustion gases back into your home.

One important note: if your gas fireplace is B-vent and you already have an installed system without makeup air, avoid running the range hood while the fireplace is in use. This is a genuine carbon monoxide risk, not an inconvenience. A carbon monoxide detector should absolutely be installed on the same level as your gas fireplace, and ideally near bedrooms — if the detector ever alarms while the fireplace is running, stop using the fireplace immediately and have it professionally inspected by a TSSA-licensed gas fitter.

If you're planning a gas fireplace installation or considering whether your current setup is creating pressure imbalances, a fireplace professional can assess your home's air tightness, range hood CFM rating, and current fireplace venting to recommend whether makeup air is necessary. You can browse experienced gas fireplace installers through the Ottawa Construction Network directory if you'd like professional guidance on this specific issue.

Q10

My chimney cap gets blocked with ice and snow every Ottawa winter — what's the best fix for this?

Ice and snow blockage in your chimney cap is one of the most frustrating—and potentially dangerous—problems Ottawa homeowners face, and it's a direct result of our brutal winters and the physics of warm air meeting -25 degree temperatures. The good news is there are several proven solutions, depending on your specific situation and how much you want to invest.

Why This Happens in Ottawa

When warm flue gases exit your chimney into subzero air, they create condensation that freezes on the cap and surrounding surfaces. Wind-driven snow accumulates around the cap opening, and the freeze-thaw cycle locks it all together into an ice dam that blocks your chimney completely. This is especially common if you're burning wood or have a wood stove—the longer burn cycle and higher moisture content in creosote create more condensation. A blocked chimney is a serious problem because it forces combustion gases back into your home, creating carbon monoxide poisoning risks, and it can prevent your fireplace or stove from working at all when you need it most.

The Best Solutions

A chimney cap with ice-shedding design is your first line of defence. Standard flat caps with a small lip encourage ice and snow to pack around the opening. Upgrade to a **sloped or peaked cap**—sometimes called a "roof-style" cap—that sheds snow and ice rather than collecting it. These cost $200 to $600 installed (compared to $100 to $300 for a standard flat cap) and are well worth the premium in Ottawa. Look for a cap with a steep slope and smooth surfaces that don't trap moisture.

A chimney chase cover (if your chimney is wood-framed and vented through a roof opening) can also help by keeping snow away from the entire top of the structure, not just the cap opening. These typically cost $300 to $800 installed and are especially useful if your chimney is in a sheltered or wind-prone location.

A chimney cap guard or mesh extension increases the height of the cap opening above the surrounding roof surface, moving it higher into warmer air where less snow accumulates. Some contractors install a tall, angled chimney cap extension that sits 12 to 18 inches above the original cap—this works surprisingly well because wind at that height often blows snow and ice away before it can accumulate. Cost is typically $150 to $400 additional.

For gas fireplaces, a **power vent cap** (a motorized damper that opens only when the fireplace is running) eliminates the static opening where ice forms. When the fireplace is off, the cap closes, sealing the chimney completely. These cost $800 to $1,500 installed but solve the ice problem entirely and also improve efficiency by

reducing heat loss up the flue. Power vents require electricity, so you'll need to run a low-voltage wire from your fireplace to the cap—not difficult, but it's a real installation.

For wood stoves or fireplaces, the most practical solution is often a combination: upgrade to a peaked cap AND have your chimney swept twice per winter instead of once (October sweep before the heavy burning season, and February sweep mid-season). A winter chimney cleaning costs the same as a fall cleaning ($175 to $350) but can prevent creosote buildup that exacerbates ice formation. Some Ottawa homeowners with wood stoves as primary heat sources schedule three sweeps per season—September, January, and April—because of the volume of wood burned.

Important Considerations

Do not attempt to remove ice from your chimney cap yourself by climbing on the roof in winter—this is how people fall and die in Ottawa. If your cap is actively blocked and your fireplace or stove won't draw, call a WETT-certified chimney sweep immediately, not in the spring. They have proper safety equipment and can clear the blockage from the roof safely.

Avoid the temptation to oversized caps with very large openings—while these might seem like they'd shed snow better, they can actually allow wind-driven snow to blow directly into the flue. The best caps combine a peaked roof design with a rim that sits just high enough to deflect snow without creating a wind scoop.

If your chimney cap keeps icing up but your fireplace vents fine, the problem might not be the cap itself—it could be that your flue is too cool because your chimney is undersized for your appliance, the chimney lacks proper draft, or you're burning wet wood that produces excessive condensation. A WETT Level 2 inspection ($350 to $600) can identify whether the blockage is a design issue or a symptom of something else.

Next Steps

If ice blockage is a recurring winter headache, your best bet is to schedule a professional chimney inspection and get recommendations for an upgraded cap style suited to your specific chimney height, roof exposure, and appliance type. A peaked or sloped cap is almost always better than a flat cap in Ottawa's climate—it's one of the simplest upgrades that genuinely solves this problem. You can reach out through the Ottawa Construction Network directory to find a WETT-certified chimney technician who can assess your setup, recommend the right cap style, and handle the installation safely.

Looking for experienced contractors? The Ottawa Construction Network connects Ottawa homeowners with qualified professionals:

- Homeupgraders
- JC Carpentry
- Rrenovatios
- ComfortWay Plumbing Heating and Cooling
- Valcor Construction

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Q11

Why does condensation keep dripping from my fireplace flue during Ottawa winters and how do I stop it?

Condensation dripping from your fireplace flue during Ottawa winters is one of the most common—and most dangerous—problems we see in the National Capital Region, and it deserves immediate attention because it signals a combination of factors that can damage your chimney and create serious safety risks if left unchecked.

The root cause is straightforward physics colliding with Ottawa's brutal climate. Your flue gases—the hot exhaust from your fireplace or wood stove—rise up through the chimney and should exit at the top well above the roof. But in Ottawa's extreme cold, the outside air temperature can be -25 to -30 degrees Celsius while your flue gases have cooled significantly by the time they reach the top of the chimney. If those gases cool below their dew point before exiting, water vapour condenses into liquid droplets that run back down the inside of the chimney and drip into your fireplace, onto your hearth, or—worse—into the wall cavities around the chimney where they cause hidden water damage and mold growth.

The problem is almost always rooted in one of three scenarios specific to Ottawa heating patterns. First, if you have an **undersized or poorly drafted flue**, the exhaust gases move too slowly and cool excessively before reaching the top. This is common when an old masonry fireplace is retrofitted with a gas insert that is not properly matched to the original chimney dimensions, or when an existing flue is used to vent an appliance it was never designed for. Second, if your **chimney is too tall or poorly insulated relative to the outside air temperature**, the gases lose heat as they travel upward, condensing before they escape. Third, and most insidiously in Ottawa, if you are running your fireplace or stove at **low burn rates**—damping it down to stretch fuel or reduce heat during shoulder season—the flue gases cool even more, virtually guaranteeing condensation.

For wood-burning fireplaces and stoves, the problem is magnified because you are also dealing with **water content in the exhaust itself**. Burning wood produces water vapour as a combustion byproduct. In a properly drafted, hot

flue, this vapour exits harmlessly. But in a cold, slow-draft scenario, especially if you are burning unseasoned or wet wood (which produces even more water vapour), that moisture condenses aggressively inside the chimney.

Here are the specific steps to diagnose and address the problem:

First, have a WETT Level 2 inspection performed by a certified chimney professional. The inspection will determine whether your flue is properly sized for your appliance, whether the chimney has the correct draft characteristics, and whether there are hidden structural problems like a cracked liner or deteriorated flue tiles that are reducing draft. This costs $350 to $600 in Ottawa and is essential before attempting fixes. Many condensation problems stem from issues that are invisible without a professional evaluation.

Second, if you have a wood-burning fireplace or stove, ensure you are burning only properly seasoned hardwood—no softwoods like pine or spruce, and absolutely no wet or green wood. Wood should be split and stacked for 12 to 18 months before burning, reaching a moisture content of 15 to 20 percent. Wet wood is the single biggest driver of excessive flue condensation in Ottawa homes. Buy your wood in spring or early summer for the following winter, and store it properly: off the ground, covered on top, open to air flow on the sides, at least 5 metres from the house. A moisture meter costs $30 to $50 and will confirm your wood is ready to burn.

Third, never damp down a wood fire excessively to reduce heat output. Low-temperature burns produce massive creosote buildup and guarantee condensation. If the fire is producing too much heat, the correct solution is to burn less frequently or use smaller loads, not to choke the air intake. For gas fireplaces, avoid running the appliance at minimum heat settings for extended periods, as this also reduces flue gas temperature below condensation point.

Fourth, consider a chimney cap upgrade if your existing cap is corroded, damaged, or poorly designed. A quality stainless steel rain cap costs $200 to $600 installed and reduces water intrusion at the top of the flue. However, the cap must allow adequate air flow—a cap that is too restrictive will worsen draft and condensation.

Fifth, if condensation persists despite these steps and your WETT inspection confirms the flue is properly sized and drafted, you may need to install an insulated chimney liner or reline the chimney entirely. An uninsulated clay tile or metal liner allows the flue gases to lose heat rapidly to the cold outside air. A stainless steel liner costs $2,000 to $5,000 installed and provides modest insulation. A cast-in-place insulated liner costs $4,000 to $8,000 installed but provides significantly better thermal resistance and will virtually eliminate condensation. This is a major investment, but it is the permanent fix in cases where the original chimney structure is sound but undersized or poorly insulated for modern appliances.

Critical safety warning: Do not ignore condensation dripping into your fireplace or home because water running down the inside of the chimney eventually finds cracks in the liner and leaks into the wall cavity, where it causes structural damage, mold growth, and deterioration of the chimney masonry from the inside. The freeze-thaw cycle

in Ottawa will accelerate this damage catastrophically—water that seeps into mortar joints and brick freezes, expands, and shatters the masonry from within. We see chimneys that were sound five years ago reduced to crumbling hazards because condensation was ignored. Additionally, water damage inside the chimney and flue liner reduces draft efficiency and increases creosote accumulation, raising your risk of a dangerous chimney fire.

A WETT-certified chimney professional in the Ottawa area will be able to determine whether your problem is a sizing issue, a draft issue, a fuel issue, or a structural issue requiring liner replacement. You can browse fireplace and chimney contractors through the Ottawa Construction Network directory to find experienced professionals in your area who understand Ottawa's specific condensation challenges and can recommend the right fix for your situation.

Looking for experienced contractors? The Ottawa Construction Network connects Ottawa homeowners with qualified professionals:

- Homeupgraders
- JC Carpentry
- Galico Home Comfort Inc.
- Grunt Work 4 Grunts
- ComfortWay Plumbing Heating and Cooling

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Q12

Is a flexible chimney liner or rigid liner better for relining a fireplace flue in Ottawa?

Rigid stainless steel liners are the better choice for relining masonry chimneys in Ottawa, and they are the standard material used by WETT-certified professionals across the National Capital Region. Flexible liners have a place in certain situations, but they are not ideal for Ottawa's extreme climate and the majority of fireplace relining projects.

Here is why rigid stainless steel works best in Ottawa's freeze-thaw environment. Rigid liners are made of seamless or corrugated stainless steel pipe (typically 6-inch or 8-inch diameter, depending on your appliance) and are installed as a straight, continuous liner from the firebox or appliance connection all the way to the chimney top. They handle Ottawa's brutal temperature swings without any concern — stainless steel expands and contracts

uniformly, and the rigid structure resists the thermal stress that comes with heating to 500+ degrees Celsius on a burning day and cooling to -30 degrees overnight. Rigid liners also shed condensation and creosote more efficiently because the smooth, hard interior surface does not allow deposits to grip and accumulate the way fabric-backed flexible liner does. Over the life of a chimney in Ottawa, where you may run a wood stove or fireplace 150 to 200 days per year for 20+ years, this difference in deposit management is genuinely significant.

Flexible liners — typically made of stainless steel cable with a flexible knit fabric and aluminum or stainless facing — do have real advantages in specific scenarios. They are easier to install in chimneys with offsets, bends, or irregular shapes because the liner can conform to the chimney's path rather than requiring straight runs. They cost slightly less upfront, typically $2,000 to $3,500 installed compared to $2,500 to $4,500 for rigid liners, depending on chimney height and diameter. And they are genuinely necessary in rare cases where a chimney is so severely deteriorated or misaligned that a rigid liner cannot be safely installed. However, flexible liners have real disadvantages for Ottawa fireplace owners. They are less durable in high-use situations because the seams and fabric backing can trap creosote and moisture. They are harder to clean thoroughly because a chimney sweep's brush can snag on the flexible material, potentially creating weak spots. They are more prone to creosote glazing — that hard, shiny, dangerous Stage 3 creosote that is a chimney fire waiting to happen — because the slightly rougher surface gives deposits more texture to grip. And they can develop small tears or punctures over time, especially if you have an aggressive cleaning schedule, which Ottawa homeowners absolutely should have.

The vast majority of WETT-certified chimney professionals in Ottawa recommend rigid stainless steel liners for wood stoves, wood-burning fireplace inserts, and traditional masonry fireplaces. For gas fireplaces, aluminum liners are sometimes used because gas produces less corrosive byproducts than wood, but even then, many pros prefer stainless for longevity and to avoid future complications if you ever convert to wood. If your chimney has a very pronounced bend or irregular shape that cannot accommodate a rigid liner, a competent sweep will diagnose that during the inspection, and they can discuss flexible liner options as a workaround. But for a straight or nearly-straight chimney — which describes the vast majority of Ottawa homes — rigid stainless steel is the superior choice.

Cost-wise, budget **$2,500 to $4,500 for a complete rigid stainless steel relining** in Ottawa, including the liner material, installation labour, new cap, and proper chimney sealing. That price assumes a straightforward installation without major obstacles. If your chimney requires partial rebuilding, structural repair, or the liner installation reveals hidden damage, costs can climb to $5,000 or more. Always get written quotes that specify the liner diameter (6-inch or 8-inch), the gauge of the stainless steel (thicker is better and lasts longer), and whether the quote includes chimney cap replacement, chimney crown sealing, and a post-installation WETT inspection.

One crucial warning: **never attempt chimney relining as a DIY project.** This work requires specialized equipment (a rope and winch system to lower the liner down from the roof), knowledge of proper sizing and connection to the

appliance, expertise in sealing around roof penetrations, and understanding of how to integrate the liner with chimney caps and cleanout doors. A botched relining can trap moisture inside the chimney, fail to properly draft your appliance, or create carbon monoxide risks if connections are not airtight. It is also dangerous work at height on an Ottawa roof, especially in spring or fall when you might be relining — one slip can be catastrophic.

If you are considering relining your chimney, the first step is always a professional WETT Level 2 inspection ($350 to $600 in Ottawa) to assess whether relining is necessary, whether your chimney's structure will accommodate it, and whether rigid or flexible liner is the right choice for your specific situation. You can browse WETT-certified chimney professionals through the Ottawa Construction Network directory when you are ready to schedule that inspection and get firm quotes on the relining work itself.

Looking for experienced contractors? The Ottawa Construction Network connects Ottawa homeowners with qualified professionals:

- Justyn Rook Contracting
- The Egress Group Inc
- Innovation Concrete Grind & Polish
- Vanguard Environmental
- Capital City Drywall

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Q13

How much does it cost to install a power venter on an older Ottawa fireplace that has draft problems?

A power venter (also called a draft inducer or forced-draft fan) typically costs **$800 to $2,000 installed** on an older fireplace in Ottawa, depending on the venter model, your chimney configuration, and whether modifications to the flue are needed. This includes the equipment itself ($400 to $1,200), labour ($300 to $600), and any necessary ducting or control wiring.

Before investing in a power venter, it's important to understand why draft problems happen in Ottawa and whether a venter is actually the right solution for your specific situation.

Why Ottawa Fireplaces Struggle with Draft

Ottawa's extreme climate creates persistent draft challenges that milder regions rarely face. Cold air pooling in the valley during winter inversions — especially common in February and March — can starve a fireplace of the warm, buoyant air it needs to draw smoke up and out. Wind patterns along the Ottawa River and the Rideau Canal corridor cause intermittent downdrafts that blow smoke back into the living room. Chimneys shorter than surrounding rooflines, nearby trees taller than the chimney, or homes in valleys are particularly vulnerable. Additionally, modern homes with tight air sealing and mechanical ventilation (exhaust fans, range hoods, dryers) can create negative pressure that actually pulls air down the chimney instead of allowing smoke to rise naturally. An older fireplace with a deteriorating chimney, creosote buildup, or a damaged crown also loses draft efficiency.

Understanding Your Draft Problem

The first step is diagnosing whether a power venter is actually necessary. A **WETT Level 2 inspection** (typically $350 to $600 in Ottawa) will identify whether your draft problem is caused by chimney damage, undersizing, excessive creosote, obstruction, or external factors like negative pressure or wind effects. Sometimes the solution is as simple as installing a proper chimney cap, sealing air leaks, or having the chimney professionally cleaned. Other times, the chimney crown is cracked and needs repair ($300 to $1,200), or the flue is partially blocked by debris or deteriorated clay tile.

When a Power Venter Makes Sense

A power venter is genuinely useful if your WETT inspection confirms that your chimney structure is sound, the flue is clear, the chimney is properly sized for the fireplace, and the draft problem is caused by weather conditions, negative pressure, or external air patterns that can't be fixed by sealing or repositioning. Power venters are especially practical for older masonry fireplaces that sit in valleys or are surrounded by tall trees. Modern venters operate quietly, are controlled by a thermostat or manual switch, and only run when you actually use the fireplace

— they don't pull heated air up the chimney continuously.

Important Considerations and Tradeoffs

Power venters require electricity and should be wired by an ESA-licensed electrician. During an Ottawa power outage — which happens regularly during ice storms — the venter will not operate, meaning you'll have no fireplace backup heat. Some venters include battery backup systems, but these add $300 to $600 to the cost. If you're using your fireplace as supplemental heat during the winter heating season, a venter that fails during a power outage when you actually need the fireplace is a real limitation.

Second, a power venter changes how your fireplace operates. The venter is typically installed in the flue and pulls smoke and gases out mechanically, which is very different from the natural convection draft that old fireplaces were designed around. This works extremely well for preventing smoke blowback and ensuring consistent draft, but it means your fireplace will feel slightly different — the fire may burn differently, and the sense of natural "draw" is gone. This is not dangerous, but it is noticeably different from a naturally drafting fireplace.

Third, a power venter is a permanent system that will eventually need maintenance or replacement — the motor typically lasts 10 to 15 years, and a replacement motor runs $400 to $800. Budget for this when considering whether a venter is cost-effective for your situation.

Cost-Effective Alternatives

Before committing to a power venter, explore whether chimney cap installation, chimney crown repair, flashing replacement, or proper weatherproofing might solve your draft problem at a lower cost ($200 to $1,200). If your chimney is deteriorating or blocked, cleaning and repair ($500 to $3,000) might restore natural draft. If negative pressure from exhaust fans or dryers is the culprit, sealing ductwork or installing backdraft dampers ($200 to $500) could eliminate the problem entirely without adding an electrical component to your fireplace.

A professional WETT inspection — the real starting point for any draft problem — will clarify whether a venter is necessary or whether a simpler, less expensive fix will actually solve the problem. From there, you can make an informed decision about whether the $800 to $2,000 venter investment is the right move for your Ottawa home and your comfort expectations.

If you decide a power venter is the right solution, you can browse fireplace professionals in the Ottawa Construction Network directory who have experience diagnosing and installing draft solutions on older fireplaces.

Looking for experienced contractors? The Ottawa Construction Network connects Ottawa homeowners with qualified professionals:

- Luxe Painting and Renovations
- The Egress Group Inc
- Demontigny Carpentry
- Ottawa Demolition Corp.
- Joe Imerti Contracting

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Q14

What are the Ontario code requirements for termination clearance when venting a gas fireplace near a soffit in Ottawa?

Gas fireplace venting termination must maintain specific clearances from soffits to prevent combustion gases from being drawn back into the house through soffit vents or causing heat damage to building materials. In Ontario, direct-vent gas fireplaces require a minimum 12-inch clearance from the vent termination to any soffit or overhang, measured horizontally from the centre of the vent cap.

This clearance requirement is critical in Ottawa's climate because our homes are typically sealed tight against winter cold, creating negative pressure that can draw exhaust gases back into the house through soffit vents, bathroom fans, or other openings. The 12-inch rule prevents this dangerous backdrafting scenario and ensures adequate dilution of combustion gases. Additionally, the vent termination must be at least 12 inches below any soffit, eave, or overhang to prevent heat damage to vinyl soffits or wooden trim, which can warp, discolour, or ignite under prolonged exposure to hot exhaust gases.

The Ontario Building Code also requires that gas fireplace vents terminate at least 6 feet horizontally from any door, window, or gravity air inlet, and at least 3 feet above grade level. When installing near soffits, contractors must also consider the manufacturer's specific requirements, which may be more restrictive than the building code minimums. Some high-efficiency units require larger clearances, and linear fireplaces with higher BTU outputs may need additional spacing.

Common installation mistakes include measuring clearances incorrectly (always measure from the centre of the vent cap, not the edge), failing to account for future soffit repairs or replacements that might reduce clearances, and not considering snow buildup that can effectively reduce the clearance to grade. TSSA-licensed gas fitters understand these requirements and will ensure your installation meets both code and manufacturer specifications.

If you're planning a gas fireplace installation that involves challenging clearance situations near soffits or overhangs, you can browse experienced gas fitters through the Ottawa Construction Network directory to find professionals familiar with code-compliant solutions for Ottawa homes.

Q15

Our Barrhaven home has two fireplaces sharing one flue — is that legal under Ontario fire code?

Two fireplaces sharing a single flue is **not permitted under the Ontario Building Code**, and it creates serious safety and performance problems that make it a genuine hazard in your Barrhaven home.

Here is why this matters: The Ontario Building Code requires each fireplace or heating appliance to have its own dedicated flue — there are no exceptions for shared chimneys. When two fireplaces use the same flue, you risk dangerous backdrafting (where exhaust gases and smoke from one fireplace reverse direction and enter the room instead of exiting), carbon monoxide accumulation in the home, loss of heating efficiency as gases from one fireplace cool down before exiting the top, and uneven draft conditions that cause one fireplace to smoke while the other functions normally. In Ottawa's climate, where cold outdoor air can create persistent downdraft conditions, the risk of backdrafting from a shared flue becomes even more pronounced during winter when both units might be in use or when wind patterns shift. This is especially problematic if one fireplace is used more frequently than the other — the less-used flue can become a pathway for gases from the active fireplace to back into the house.

The practical solution depends on your fireplace types and chimney structure. **If both are wood-burning fireplaces**, you need to separate them into two distinct flues. This typically means installing a chimney partition wall inside the existing chimney structure (dividing it vertically with a masonry or insulated wall) or, more commonly, installing a secondary flue liner alongside the existing one. The cost for chimney partition or secondary liner installation in Barrhaven runs **$3,000 to $6,000 depending on chimney height, accessibility, and whether the partition is full-height or partial-height**. **If both are gas fireplaces or inserts**, the solution is often simpler — you may be able to install a secondary vent pipe for one unit, which costs **$1,500 to $3,000**, though this depends on the fireplace locations and roof configuration. **If one is wood and one is gas**, you must absolutely separate them, as they have different venting requirements and mixing them creates serious safety hazards.

Before proceeding with any fix, you need a professional assessment. A WETT-certified chimney inspector can evaluate your existing chimney structure, determine whether it is currently safe to use, and recommend the appropriate separation method. This inspection (Level 2 or Level 3) will cost **$350 to $1,000** but will give you a clear picture of what you are working with and what permits you will need. The City of Ottawa requires a building permit

for chimney partition or secondary flue installation — this is not a grey area or a project to attempt without proper authorization. Your home insurance may also require proof of code-compliant separation before they will insure the fireplaces, so addressing this now is critical for both safety and insurability.

I would also mention that if this is an older home where the two-fireplace-one-flue setup dates back decades, it may have been done before current code was established — but that does not make it legal or safe today. The same applies if the previous owner simply never had it inspected.

A WETT-certified chimney professional in the Barrhaven area can assess your specific situation and recommend the right fix. You can browse fireplace and chimney contractors through the Ottawa Construction Network directory at justynrookcontracting.com/directory to find experienced professionals who handle this type of remedial chimney work.

Looking for experienced contractors? The Ottawa Construction Network connects Ottawa homeowners with qualified professionals:

- Luxe Painting and Renovations
- RenoMotion Inc.
- Humble Homes - property maintenance
- Anchor Home Comfort
- ComfortWay Plumbing Heating and Cooling

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Q16

Can a WETT-certified inspector in Ottawa tell me if my flue is safe or needs full replacement?

Yes, a WETT-certified inspector can absolutely tell you whether your flue is safe or needs replacement — that is exactly what they do. During a Level 1, Level 2, or Level 3 inspection, the inspector will assess the condition of your chimney liner (the flue), identify damage or deterioration, and recommend whether repairs, relining, or full replacement is necessary.

What a WETT Inspector Actually Looks For

A WETT-certified chimney sweep uses specialized equipment — typically a video camera on a flexible rod — to inspect the interior of your flue from bottom to top. They are looking for cracks in clay tile liners, rust or corrosion in metal liners, separation of liner sections, creosote buildup, debris, bird nests, and damage from chimney fires. In Ottawa's freeze-thaw climate, clay tile liners are particularly vulnerable because water enters through microscopic cracks in the tile, freezes as temperatures plunge below -25 degrees Celsius, expands about 9 percent, and shatters the tile from the inside out — a process called spalling. A WETT inspector will identify this damage before it becomes dangerous.

The level of inspection determines how thoroughly the flue can be assessed. A **Level 1 inspection** ($250 to $450 in Ottawa) is a visual examination suitable for annual maintenance or if there has been no change to the appliance or chimney system. A **Level 2 inspection** ($350 to $600) is more detailed and typically includes video inspection of the flue — this is the standard for real estate transactions or if you suspect problems. A **Level 3 inspection** ($500 to $1,000 or more) involves invasive examination, potentially including partial removal of drywall or exterior cladding to inspect concealed portions of the chimney structure. If your inspector suspects flue damage during a Level 1 or 2, they will likely recommend upgrading to a more thorough inspection.

Safe vs. Unsafe Flues in Ottawa

An unsafe flue in Ottawa typically has one or more of these conditions: significant cracks or missing pieces of clay tile (which allow flue gases to escape into the chimney structure and potentially into your home), rust perforation through a metal liner (which allows dangerous gases to bypass the flue system), a flue that is too small for your appliance (undersized flues create draft problems, creosote accumulation, and carbon monoxide spillage into the living space), a flue with a 90-degree or severe bend that restricts gas flow (except in specific direct-vent gas fireplace applications), heavy glazed creosote buildup (Stage 3 creosote, the hard black coating that looks like glass, is a chimney fire hazard and must be removed or the flue must be relined), or separation of flue sections at mortar joints (which allows combustion gases to leak into the chimney cavity).

A safe flue is watertight, properly sized for your appliance, free of significant creosote buildup or obstructions, and has no cracks, holes, or deterioration that would allow gases to escape. In Ottawa, even a seemingly safe older chimney may be vulnerable to freeze-thaw damage in the next few years if it shows early signs of spalling or if the chimney crown is deteriorated — a good inspector will flag these concerns so you can plan ahead rather than face an emergency repair in November when every chimney technician in the city is booked solid.

When Relining vs. Full Replacement Makes Sense

If your flue is damaged, your WETT inspector will recommend either relining or replacement. **Relining is appropriate** when the chimney structure itself is sound but the liner is compromised — this is the most common scenario in Ottawa. A stainless steel flue liner ($2,000 to $5,000 installed, depending on chimney height and liner diameter) can be inserted into a deteriorated clay tile chimney, restoring functionality and safety without rebuilding the entire chimney structure. Cast-in-place cement liners ($4,000 to $8,000 installed) are another option that simultaneously relines the chimney and reinforces the masonry structure — valuable in Ottawa where freeze-thaw damage affects not just the liner but the brick and mortar around it.

Full replacement ($8,000 to $20,000 or more) is necessary only when the chimney structure itself — the brick, stone, or concrete block walls — is severely deteriorated or damaged beyond repair. This might happen after a severe chimney fire that causes internal damage, if the chimney has multiple courses of missing or crumbling brick, if the chimney is leaning or has separated from the house structure, or if previous water damage has caused extensive mortar joint failure throughout the chimney. A WETT inspector can tell you whether the problem is just the liner or if the whole chimney needs rebuilding.

Important Considerations for Ottawa Homeowners

Your insurance company may require a WETT inspection before they will insure a home with a wood-burning fireplace, insert, or wood stove — so get the inspection done early. If the inspector recommends relining or repair, do not delay addressing it. An unsafe flue is a serious hazard: combustion gases including carbon monoxide can escape into your home, creosote can accumulate dangerously and cause a chimney fire, and water can infiltrate your house through a deteriorated chimney crown. In Ottawa's brutal winters, a chimney problem that seems minor in October can turn into a safety emergency by January.

Schedule your WETT inspection in spring (April to May) or early fall (August to September) rather than waiting until October or November when demand peaks and appointment availability vanishes. If you need a WETT-certified inspector or a contractor to handle any recommended relining or repair work, you can browse fireplace professionals in the Ottawa Construction Network directory to find licensed chimney sweeps and technicians serving your area.

Looking for experienced contractors? The Ottawa Construction Network connects Ottawa homeowners with qualified professionals:

- Homeupgraders
- The Egress Group Inc
- Joe Imerti Contracting
- Regimbal
- Capital City Drywall

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Q17

How much should I budget to convert my old masonry chimney to a direct-vent gas system in Kanata?

A direct-vent gas fireplace conversion in your Kanata masonry chimney typically runs **$4,000 to $8,500 installed**, with most projects falling in the **$5,500 to $7,000 range**. This includes the direct-vent gas fireplace unit itself ($2,500 to $4,000), professional installation labour, a new chimney cap and closure system, gas line connection, and all necessary venting materials.

Why This Conversion Makes Sense for Ottawa's Climate

Converting an old masonry fireplace to direct-vent gas is one of the smartest fireplace decisions Ottawa homeowners make. Your existing masonry chimney has likely endured 30, 40, or 50+ years of brutal freeze-thaw cycling, and the interior is probably deteriorating — clay tile liners crack, mortar joints crumble, and the chimney crown leaks. Rather than investing $4,000 to $8,000 in a full chimney reline or rebuild, a direct-vent conversion seals off that problematic masonry entirely and gives you a modern, efficient heating appliance that actually works in Kanata's extreme winters without maintaining a crumbling brick stack.

Direct-vent gas fireplaces draw combustion air directly from outside through one vent pipe and exhaust through another, meaning they are completely sealed from your living space. This is a massive advantage in Ottawa's climate because it prevents the negative pressure issues that plague older gas fireplaces — you are not burning household oxygen, not creating cold air drafts, and not pushing moisture into your walls during winter. The system is 80+ percent efficient (compared to 30 to 40 percent for your old open fireplace), and you get reliable, controllable

heat without the mess of seasoned firewood, creosote buildup, or annual chimney sweeping.

Cost Breakdown for Kanata

Here is what the **$5,500 to $7,000 typical budget** actually covers:

Direct-vent gas fireplace unit: $2,500 to $4,000 for a quality unit with realistic flame effects and variable heat output. Premium linear models run higher ($4,500 to $6,000), but a standard direct-vent insert is excellent value.

Professional installation labour: $1,500 to $2,500. This includes removing the old fireplace surround if you are keeping the existing masonry opening, installing the new unit with proper clearances, running gas and electrical connections, and testing the system.

Gas line extension or connection: $300 to $1,200 depending on whether you already have a gas line near the fireplace location. If the closest gas supply is on the opposite side of the house, expect the upper end of this range.

Venting materials and chimney cap: $400 to $800. The direct-vent pipes (double-wall insulated, typically 4 inches diameter) run up through your existing masonry chimney or along the exterior, and the chimney is capped with a metal termination cap.

TSSA inspection and compliance tagging: $150 to $250. A TSSA-licensed gas fitter must perform a final inspection and tag the appliance to confirm it meets Ontario code.

Optional upgrades that push costs higher: fireplace surround refinishing or stone facing ($1,500 to $4,000), a new mantel ($800 to $2,000), or a dedicated thermostat or wall control ($200 to $400).

Critical Considerations for Your Kanata Project

TSSA licensing is non-negotiable. All gas work — every aspect of this conversion, including the gas line, the fireplace connection, and any modifications to your existing gas plumbing — must be performed by a TSSA-licensed G2 or G3 gas fitter. This is Ontario law. Unlicensed gas work voids your home insurance and creates genuine carbon monoxide and explosion risks. When you get quotes, verify that the contractor holds a current TSSA license, and ask for documentation confirming compliance tagging after the job is done.

Your masonry chimney does not disappear. The conversion seals off the flue with a cap and sometimes a metal collar, but the chimney structure remains. You may want to consider cosmetic options — painting the exterior, installing a new cap, or adding a crown if the existing one is deteriorating. These are separate costs but are worth planning for because visible deterioration of the masonry will eventually bother you.

Seasonal scheduling matters. Winter is peak fireplace season in Kanata, and contractors are booked solid from October through December. If you want a spring or early fall installation (April through September), you will likely

get faster scheduling and potentially better availability. Gas installation work can technically happen year-round, but spring and fall are ideal.

Building permits may or may not be required. The City of Ottawa requires permits for new chimney construction but typically does not require permits for replacing an appliance in an existing fireplace location. However, if you are moving the fireplace to a new wall or significantly altering the chimney, a permit is required. It is worth confirming with the City of Ottawa Building Code Services (call 3-1-1) before starting work.

Carbon monoxide safety is essential. Your new direct-vent fireplace should have its own dedicated CO detector nearby, and you should have additional detectors on every level of your home. Direct-vent systems are extremely safe when properly installed, but carbon monoxide is a silent killer — treat detection seriously.

If your conversion involves cosmetic work or you want to explore your options with experienced Kanata gas fitters, you can browse fireplace installers through the Ottawa Construction Network directory at justynrookcontracting.com/directory to compare local professionals, review their profiles, and reach out directly with your project details.

Looking for experienced contractors? The Ottawa Construction Network connects Ottawa homeowners with qualified professionals:

- Apple HVAC and mechanical
- The Egress Group Inc
- Custom By Arie
- Ottawa Heating Cooling Repair
- Transitions Renovations

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Q18

Why does cold Ottawa air push smoke back down my chimney when I first light a fire in the fall?

Cold air in your chimney is preventing hot smoke from rising naturally, causing it to back up into your room instead — this happens most often in early fall when outdoor air is significantly colder than the chimney interior and the temperature differential needed to create draft has not yet developed.

How Ottawa's Fall Climate Creates Downdraft

This is a quintessentially Ottawa problem. Your chimney works by stack effect — hot combustion gases are less dense than cold outside air, so they naturally rise and escape up the flue. But in early fall, when nights dip to 5 to 10 degrees Celsius while your house is still heated to 20 degrees, the outdoor air is cold enough to create a "cold plug" of dense air sitting in your chimney from the roofline down. When you light a fire, the initial heat from new flames must first warm that entire column of frigid air before it can push it upward. Until the chimney reaches an equilibrium temperature, the smoke has nowhere to go but back into your house.

The same phenomenon happens on extremely cold winter mornings when the chimney has lost all residual heat overnight. But fall is worse because homeowners often light fires sporadically — maybe twice a week in September — so the chimney never gets truly warm and stays prone to temporary downdraft.

The problem is compounded if you have a short chimney, poor insulation around the exterior chimney, or a chimney that is shaded by tall trees. A chimney that stands fully exposed to sun gains heat from solar radiation throughout the day, even in fall. A chimney hidden in shade stays cold. Similarly, a chimney that runs entirely inside your house walls (interior chimney) stays warmer overnight because the heated house keeps it warm. An exterior chimney loses heat directly to the 5-degree October air.

Practical Solutions

Before lighting a fall fire, open a nearby window slightly (just 2 to 3 inches) for 30 seconds while you build and light the fire. This equalizes air pressure and gives the smoke an easier path to escape than down the chimney. Once the fire is burning hot enough (typically after 5 to 10 minutes of vigorous flames), close the window and the chimney draft will have stabilized.

Never close the damper immediately. Let the fire burn down naturally with the damper open, then close it only once the embers are cool to the touch. Closing the damper too early traps cold air and smoke in the chimney, slowing the warming process for next time.

Ensure your chimney is clear. A partially blocked chimney or one with significant creosote deposits will have reduced draft capacity. Schedule a WETT-certified chimney sweep to clean and inspect your system before the heavy fall burning season — this costs $175 to $350 in Ottawa and is the single most effective way to improve draft performance. Creosote buildup is especially common in Ottawa because your long burn season means more deposits accumulate, and the creosote hardens more readily in our cold climate.

Check your chimney cap and crown. A damaged cap or crown can restrict airflow or allow rain to enter, both of which degrade draft. If your chimney crown is cracked or the cap is corroded, have it repaired before fall — this typically costs $200 to $600 for a cap replacement and $300 to $1,200 for crown repair depending on accessibility.

Assess your chimney height. The Ontario Building Code uses the 3-2-10 rule: your chimney should extend at least 3 feet above the point where it exits the roof and at least 2 feet higher than any structure (including trees) within 10 feet of the house. If large trees have grown taller than your chimney in recent years, they create wind shadows and prevent natural air circulation. Tree pruning on your property may improve draft, but if your chimney is genuinely undersized for your location, that is a bigger problem requiring professional assessment.

For chronic fall downdraft, a chimney relining in stainless steel ($2,000 to $5,000 installed depending on height) can improve draft by reducing friction inside the flue and protecting against moisture that degrades performance. If your masonry chimney is old or partially deteriorated, relining also addresses structural issues that compromise draft.

Use this test: Light the fire and hold a lit incense stick or smoke match near the damper opening (not blocking airflow, but close enough to see the smoke direction). The smoke should be pulled upward toward the damper within 30 to 60 seconds of lighting. If smoke blows backward into the room for more than a couple of minutes, or if the incense smoke is drawn downward, draft is inadequate and you should have a professional chimney inspection.

When to Call a Professional

Persistent smoke blowback that continues after 10 to 15 minutes of burning, or smoke that reverses direction even when the fire is burning hot, suggests a genuine draft problem beyond temporary fall cold air. This could indicate a chimney that is too short for its location, poor chimney construction, a blockage or damage inside the flue, negative air pressure in your home (caused by bathroom exhaust fans, kitchen hoods, or dryer vents fighting for air), or external wind patterns unique to your property and neighbourhood.

A WETT-certified chimney professional can perform a draft test using specialized equipment and provide specific recommendations. WETT inspections in Ottawa cost $250 to $450 for a basic Level 1 inspection, and the result is concrete data about whether your chimney is performing to code.

If you determine that professional chimney assessment or relining is needed, you can browse fireplace and chimney contractors through the Ottawa Construction Network directory to compare local professionals and request quotes. Getting ahead of this problem in late August or early September — before the rush of fall service calls — will ensure your chimney is ready for reliable performance all winter long.

Looking for experienced contractors? The Ottawa Construction Network connects Ottawa homeowners with qualified professionals:

- Luxe Painting and Renovations
- JC Carpentry

- Leeds Property Maintenance
- Pure Flow Water Solutions inc.
- Somar Contracting Inc.

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Q19

Does Ottawa's building code require a specific chimney height above the roofline for wood-burning fireplaces?

Yes, Ottawa must comply with the Ontario Building Code's **3-2-10 rule** for chimney height, which specifies that your chimney must extend at least **3 feet above the highest point where it penetrates the roofline** and at least **2 feet higher than any roof structure or obstruction (like a peak, ridge, or parapet) within a horizontal distance of 10 feet**. This rule applies to all wood-burning fireplaces, wood stoves, and chimney systems regardless of fuel type.

Why Ottawa's Climate Makes Chimney Height Critical

Ottawa's extreme cold and the freeze-thaw cycles that plague our masonry chimneys make proper height even more important than in milder climates. A chimney that is too short relative to surrounding structures creates draft problems and allows cold air from the ridge to flow back down into the flue — this phenomenon, called downdraft, causes smoke to blow back into the living space and dramatically reduces heating efficiency. During Ottawa's shoulder seasons (late October and early April), when outdoor temperatures hover near freezing and indoor fires burn at lower temperatures, inadequate chimney height can cause persistent smoke blowback that makes the fireplace essentially unusable. The 3-2-10 rule exists partly to prevent exactly this problem.

Additionally, chimneys that terminate below roof ridges or nearby roof peaks can trap cold air pockets in winter — the valley geography of Ottawa, especially areas near the Ottawa River or Rideau Canal, is particularly prone to these downdraft issues. A properly tall chimney rises above all competing air currents and creates the strong, consistent draft needed for reliable performance in Ottawa's variable winter conditions.

What This Means for Your Installation

If you are installing a new wood-burning fireplace, wood stove, or fireplace insert with a chimney that will be visible on the exterior, you need to measure the height carefully during the design phase. A chimney that barely meets the 3-2-10 rule may pass code but perform poorly in practice — many experienced installers in Ottawa recommend exceeding the minimum by 1 to 2 feet when feasible, particularly if there are tall trees or other roof structures nearby. The cost difference between a code-minimum chimney and one that is slightly taller is minimal during new construction but becomes very expensive to correct later if downdraft problems develop.

Existing chimneys that fall short of the 3-2-10 requirement can sometimes be extended by adding a chase (an exterior framework) and additional flue liner — this typically costs $1,500 to $3,500 installed, depending on the height increase needed and whether the chimney is masonry or metal. This is worth considering if you are converting an old fireplace to a wood insert or wood stove and experiencing smoke blowback during certain wind or temperature conditions.

The City of Ottawa's Building Code Services office (reachable at 3-1-1) can provide specific clarification for your property, and your WETT-certified wood stove installer will verify that your chimney meets the 3-2-10 rule as part of the pre-installation assessment. When you are ready to move forward with a wood-burning fireplace or stove installation, a professional installer can assess your roof line, surrounding structures, and local wind patterns to recommend the optimal chimney height for reliable performance in your specific location. You can browse experienced wood stove and fireplace installers through the Ottawa Construction Network directory to get started with a professional assessment.

Looking for experienced contractors? The Ottawa Construction Network connects Ottawa homeowners with qualified professionals:

- Apple HVAC and mechanical
- RenoMotion Inc.
- Capitalstoneworks
- Ottawa Heating Cooling Repair
- MAK Construction and Development Inc

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Q20

What's the price range to fix a cracked flue tile in a two-storey Ottawa chimney?

A cracked flue tile in a two-storey Ottawa chimney cannot be simply "fixed" or patched — the damaged tile must be replaced by relining the entire chimney with a new flue liner. This is not a minor repair, and it's one of the most important investments you can make in your chimney's safety and longevity.

Here's why relining is necessary: a crack in the original clay tile liner allows hot combustion gases, moisture, and creosote to escape into the surrounding masonry. In Ottawa's extreme freeze-thaw climate, this moisture seeps into the brick and mortar, where it freezes and expands roughly 9 percent in volume — a process that accelerates deterioration and can cause spalling (crumbling and cracking of the brick itself). A single cracked tile affects the entire flue system's integrity, and patching a single tile is not structurally sound. Beyond the structural risk, a cracked liner also allows carbon monoxide to seep into wall cavities and living spaces, creating a serious health hazard.

For a two-storey Ottawa chimney, expect chimney relining costs in the range of $2,500 to $6,000 installed, depending on the liner material, chimney height, and overall condition. A **stainless steel liner** (the most common choice) runs **$2,000 to $5,000** for a typical two-storey chimney. **Cast-in-place cement liners**, which seal cracks in the surrounding masonry and are slightly more durable in Ottawa's brutal climate, run **$4,000 to $8,000**. Aluminum liners (**$1,500 to $3,000**) are only suitable for gas appliances, not wood-burning fireplaces or stoves.

The exact cost depends on several factors. The chimney's interior diameter matters — a standard 8-inch round flue requires less material and labour than a larger flue. The height and accessibility of your chimney on the roof affect labour time. If the mason or chimney technician discovers additional damage — such as significant mortar deterioration or spalling brick that requires tuckpointing or rebuilding above the roofline — costs can climb substantially. If the chimney has multiple flues (common in older two-storey Ottawa homes), you may need to reline multiple flues, which doubles or triples the cost.

Before any relining work begins, you should have a **WETT Level 2 or Level 3 inspection** ($350 to $1,000) to determine the full extent of the damage. A WETT-certified chimney professional will examine whether the crack is isolated to one tile or whether multiple tiles are damaged, whether the surrounding masonry is sound or deteriorating, and whether relining is the right approach or if more extensive work is needed.

One critical consideration for Ottawa homeowners: relining is a spring, summer, or early fall project. Masonry and relining work require temperatures consistently above 5 degrees Celsius for proper curing, which limits the outdoor construction season to roughly April through November. If you discover a cracked tile in late October or November, you may face a wait until spring unless you hire an experienced contractor who can work quickly before the coldest weather arrives.

When you're ready to move forward, reach out to fireplace contractors through the **Ottawa Construction Network directory** at justynrookcontracting.com/directory to compare quotes. Get at least three written estimates that specify the liner material, diameter, chimney height, whether any additional repairs are included, permit responsibilities, timeline, and warranty. The cheapest quote is rarely the best choice — you want a contractor with WETT certification and experience working in Ottawa's climate, not just the lowest price.

Looking for experienced contractors? The Ottawa Construction Network connects Ottawa homeowners with qualified professionals:

- 613Bins
- The Egress Group Inc
- TIER 1 HVAC SERVICE'S INC
- Regimbal

- McLaren Masonry

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Q21

My gas fireplace keeps shutting off and I smell fumes inside our Orleans home — is the venting blocked?

Stop using the fireplace immediately and open windows to ventilate your home. Fumes inside the house combined with a shutting-off fireplace strongly suggests a serious venting or combustion problem that needs professional attention right away — this is not a minor issue or something to troubleshoot on your own.

A gas fireplace venting problem in Ottawa can manifest in several ways, and each one carries real safety risks. If your direct-vent fireplace (the sealed system that draws outside air and exhausts through a double-wall pipe) has a blocked exhaust, combustion gases including carbon monoxide back up into the living space instead of venting outside. If the intake air is blocked, the fireplace cannot get enough oxygen for combustion, which causes incomplete burning and produces carbon monoxide. The fireplace's safety shut-off system may be activating because it detects improper venting — a B-vent fireplace (single-wall pipe with inside air draw) is particularly vulnerable to downdraft or wind-driven venting failure. In Ottawa's climate, venting blockages are most common in winter when snow and ice accumulate on or around the exterior vent termination, when wind patterns create downdrafting along the Ottawa River or Rideau Canal corridor, or when debris (leaves, insects, bird nests) blocks the intake or exhaust opening.

Here is what you need to do immediately: (1) Turn off the fireplace and do not use it again until a professional has inspected and cleared it. (2) Open multiple windows to ventilate your home completely — carbon monoxide is odourless, but the "fumes" you are smelling may be unburned gas, combustion byproducts, or other evidence of improper venting. (3) Install or test the batteries in any carbon monoxide detectors you have on your main floor and bedroom levels — if a CO detector sounds an alarm, leave the house and call Emergency Services. (4) Schedule an inspection with a **TSSA-licensed gas fitter** immediately. This is not a job for a general handyman. A TSSA-licensed technician will test the venting system, check for blockages at both the intake and exhaust terminals, measure combustion gases and oxygen levels in the firebox, verify that the heat exchanger is functioning properly, and determine whether the problem is a temporary blockage or a design flaw that requires relocation of the vent terminal.

The cost for a gas fireplace service call and diagnosis in Ottawa is typically $150 to $250, and that is money well spent given the safety stakes. If the vent is blocked by ice or snow, clearing it may take 15 minutes and solve the

problem. If the vent terminal was installed in a location prone to downdraft or wind interference — a real risk in certain Orleans neighbourhoods near open areas or if your home is downwind of taller buildings — the fix might involve relocating or extending the vent pipe, which costs $500 to $1,500 depending on the routing. If the fireplace has an internal problem like a failed heat exchanger, you are looking at repair or replacement costs of $1,000 to $3,000.

Critical warning: Do not attempt to clear the vent yourself or assume the problem is minor. Carbon monoxide poisoning kills people quietly in their homes, often while they are sleeping. You cannot see, hear, or smell it. A fireplace that shuts off erratically and produces fumes inside is a clear signal that the combustion and venting system is not functioning as designed. A licensed gas fitter has the proper diagnostic equipment (combustion analysers, carbon monoxide testers, and draft gauges) to identify exactly what is wrong.

Contact a TSSA-licensed gas fitter right away — you can browse qualified fireplace and gas technicians through the Ottawa Construction Network directory at justynrookcontracting.com/directory to find a licensed professional near Orleans who can come out promptly. Given the safety concern here, ask the contractor for the earliest available appointment, even if it means paying a premium for same-day or next-day service. This is one of those rare situations where speed matters more than getting the absolute lowest quote.

Q22

What chimney cap style works best for Ottawa homes that get heavy ice and snow buildup?

Heavy ice and snow buildup is one of the most serious threats to chimney caps in Ottawa, and choosing the right cap style can make the difference between a system that lasts 20 years and one that fails within a few years under the abuse of our freeze-thaw cycles.

The **best choice for Ottawa's climate is a peaked or "hip" roof-style cap** — a design where the cap slopes downward in two directions from a central peak, shedding water and snow away from the opening rather than allowing it to pool. This design is far superior to the common flat or slightly pitched cap that many homeowners inherit with older installations. The peaked design minimizes water accumulation, allows ice and snow to slide off more readily, and prevents the dangerous situation where a thick ice dam forms around the cap opening and blocks the flue.

Here's why this matters in Ottawa specifically: our winters bring repeated freeze-thaw cycles where temperatures may swing from -20 degrees Celsius to just above freezing multiple times per season. When snow accumulates on a flat cap, it melts slightly during warmer days, the water runs to the edges where it refreezes overnight, and ice builds up in layers. This ice weight stresses the cap's attachment points and can eventually crack or dislodge the cap entirely. More dangerously, if ice completely blocks the flue opening, combustion gases back up into your home, creating a carbon monoxide hazard. A peaked cap sheds much of this snow and ice naturally, rather than inviting accumulation.

Stainless steel is the material of choice — it resists the corrosive effects of road salt (particularly important if you live near the Queensway, the Rideau Canal, or other salt-treated areas) and withstands Ottawa's temperature extremes better than galvanized steel, which becomes brittle in extreme cold. Stainless steel caps cost roughly $300 to $600 installed depending on chimney size and whether the existing cap needs removal, but the longevity premium is worth the investment in Ottawa's brutal climate. Galvanized caps are cheaper ($200 to $400) but typically last 10 to 12 years before rust develops, while stainless can last 20-plus years with minimal maintenance.

Avoid purely decorative "crown" style caps with ornate Victorian styling or caps with excessive overhang — these often trap snow and ice in crevices and can be stressed by heavy ice weight. Similarly, avoid caps with small or blocked spark arrestor screens, as these can clog with snow or ice and restrict draft.

When your cap is installed, make sure the mounting bolts are fully tightened (a professional should check these annually) and that the flashing where the cap meets the chimney crown is properly sealed with high-temperature silicone or stainless steel mesh. The flashing is where failure typically begins — water creeping under the cap edge freezes and expands, lifting the cap or cracking the crown beneath it.

One practical maintenance tip specific to Ottawa: after heavy snow or ice storms, if you can safely access your roof, carefully brush or gently tap accumulated ice off the cap to prevent excessive loading. If ice completely covers the cap opening, contact a chimney professional — you have a potential draft problem that could mean dangerous gases in your home.

A professional chimney technician can assess your current cap condition and recommend whether replacement or reinforcement of the mounting is needed. If you're ready to explore cap replacement with an Ottawa-area specialist, you can browse fireplace contractors through the Ottawa Construction Network directory to find experienced chimney technicians in your area.

Looking for experienced contractors? The Ottawa Construction Network connects Ottawa homeowners with qualified professionals:

- Apple HVAC and mechanical
- The Egress Group Inc
- L.L. Renovation
- Canadian Masonry Services
- Regimbal

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Q23

How much does it cost to reline a clay flue with a stainless steel liner in Ottawa?

Chimney relining with stainless steel in Ottawa typically costs **$2,000 to $5,000 installed**, depending on the chimney height, liner diameter, accessibility, and whether additional repairs to the chimney structure are needed during the work.

This is one of the most common and important chimney repairs in Ottawa, and understanding the cost factors will help you plan your budget realistically.

Why Relining Matters in Ottawa's Climate

Clay tile liners — standard in older masonry chimneys — are vulnerable to Ottawa's brutal freeze-thaw cycle. Water penetrates the clay through microscopic cracks and pores, freezes as temperatures drop below zero (which

happens 50+ times each winter), and expands about 9 percent as ice forms. This process, called spalling, cracks and breaks apart clay tile liners from the inside out. A chimney with cracked clay tile cannot safely vent a wood stove, fireplace insert, or any wood-burning appliance — creosote and combustion gases seep into the surrounding masonry and can cause house fires or carbon monoxide problems. Many Ottawa homeowners discover cracked clay liners during a WETT inspection and then face the choice of relining or abandoning the chimney entirely.

Stainless steel relining is the most practical solution because modern stainless steel liners are durable, code-compliant for both gas and wood-burning appliances, and cost-effective compared to a full chimney rebuild.

What Determines the Cost

The biggest factors affecting your relining cost are **chimney height** (a 35-foot chimney costs more to line than a 20-foot chimney because more liner material and more labour at height are required), **liner diameter** (6-inch liners for wood stoves and inserts are standard, but 8-inch liners cost more), and **accessibility** (if the chimney is easy to access from the roof, labour costs are lower; if roof access is difficult or requires scaffolding, costs rise). Additional repairs discovered during the relining — such as a deteriorated chimney crown, damaged flashing, or spalling masonry that needs tuckpointing — will add $500 to $2,500 or more to your total.

A typical scenario in Ottawa: a 30-foot brick chimney with a 6-inch stainless steel liner, sound masonry structure, and straightforward roof access will cost around $3,000 to $4,000 installed. If the chimney crown is cracked and requires replacement as part of the same project, add another $300 to $1,200. If the flashing is leaking and needs replacement, add $400 to $800. A chimney that is 40+ feet tall or has structural issues that require partial rebuild before relining can easily reach $5,000 to $7,000 or more.

The Process and Timeline

Relining typically takes one to two days of work. The sweep inserts a flexible stainless steel liner (available in 6-inch, 7-inch, and 8-inch diameters) down the chimney from the top, then seals the space between the liner and the original chimney walls with perlite or other insulation to improve draft and efficiency. The liner is sealed at the top with a proper flashing and cap, and the bottom connection to your appliance is sealed. Once complete, a WETT-certified sweep should verify that the installation meets code and that the chimney is safe for use.

Schedule relining work in spring (April to May) or early fall (August to September) rather than waiting until October. By October, every chimney contractor in Ottawa is booked solid because homeowners are panicking about the heating season. Spring scheduling also means your chimney is ready and safe well before the first cold snap, and fall scheduling ensures it is properly inspected before winter burning season.

Important Considerations

Stainless steel liners come in different grades — Type 316 is the premium choice for wood-burning chimneys because it resists creosote corrosion better than Type 304, though both are acceptable under Ontario Building Code. Ask your contractor which grade they specify. Also confirm that the contractor will pull a permit if required (most relining jobs do require a City of Ottawa permit) and that the work will be inspected and compliant for both wood-burning and gas appliance use, since you may want to switch appliance types later.

One critical warning: if your chimney has multiple flues (some older masonry chimneys have two or three separate flues serving different fireplaces), each flue must be lined separately, which doubles or triples the total cost. Get a detailed inspection and quote that specifies exactly which flue(s) are being lined.

When you are ready to move forward, you can browse fireplace and chimney contractors through the **Ottawa Construction Network directory** at justynrookcontracting.com/directory to compare local professionals and get detailed written quotes that specify liner grade, diameter, height, any additional repairs, and warranty terms.

Looking for experienced contractors? The Ottawa Construction Network connects Ottawa homeowners with qualified professionals:

- Apple HVAC and mechanical
- RenoMotion Inc.
- Core Climate Ltd.
- Ottawa Masonry Contractor
- Colonnade Security Inc

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Q24

Why does my fireplace backdraft every time the wind picks up in Ottawa during winter storms?

Backdrafting happens when wind pressure pushes exhaust gases and smoke back down into your living space instead of up the chimney and out into the atmosphere — and it's a frustratingly common complaint in Ottawa, especially during the severe winter storms that are practically a seasonal guarantee in the National Capital Region.

The root cause is usually a pressure imbalance. Your home is tightly sealed against Ottawa's brutal winters, which creates negative indoor pressure — especially when you're running the furnace, clothes dryer, bathroom exhaust

fan, or range hood all at once. When a winter storm hits with sustained winds of 40 to 60 kilometres per hour (which Ottawa sees regularly), wind pressure pushes against the windward side of your roof and creates suction on the leeward side. If your chimney exits on the leeward side or in a valley created by your roof, surrounding structures, or nearby trees, that wind-driven pressure can overwhelm the natural draft that should carry smoke up and out. The result: smoke, smell, and combustion gases blow backward into your fireplace and room instead of escaping to the outdoors.

This is especially problematic in Ottawa because of our geography and climate. The Ottawa Valley's topography — particularly if you live near the Ottawa River, Rideau Canal, or in lower-lying neighbourhoods — concentrates cold air and creates wind funnelling effects that intensify wind-driven pressure on chimneys. Homes in Kanata, Stittsville, Nepean, Barrhaven, and Orleans sometimes experience persistent downdraft issues in winter because of local valley effects. Additionally, many Ottawa homeowners have added second storeys, built additions, or planted tall trees over the decades — changes that can alter wind patterns around the chimney and reduce its effective height relative to roof peaks and surrounding obstacles.

Here are the most practical solutions, ranked by effectiveness:

Your chimney needs to meet the "3-2-10 rule" specified in the Ontario Building Code: the chimney must extend at least 3 feet (approximately 1 metre) above the point where it penetrates the roof and at least 2 feet (roughly 60 centimetres) higher than any structure or obstruction (including roof peaks, trees, or adjacent buildings) within 10 feet (about 3 metres) horizontally. If your chimney is shorter than nearby roof lines, tree tops, or the ridgeline of an addition, it's almost certainly experiencing wind-driven backdrafting. Extending the chimney by 2 to 4 feet is often the permanent fix — this costs $500 to $1,500 in Ottawa depending on your roof pitch and chimney type, and it's one of the most reliable solutions if the chimney is undersized.

Install a wind-resistant chimney cap. Standard flat caps allow wind to create pressure differentials that push smoke back into the flue. A "tornado cap," "bird-proof cap," or "wind-resistant cap" with a domed design or turbine-style vanes allows smoke to exit while resisting wind pressure from any direction. These run $200 to $400 installed and are a relatively inexpensive first step if your chimney is already at the right height. However, wind caps alone often don't solve the problem if the chimney is too short or if negative indoor pressure is the primary driver.

Address negative indoor pressure inside your home. If your furnace, range hood, and clothes dryer are all competing for exhaust air, or if your home is extremely well-sealed with no air intake to replace what's being exhausted, negative pressure can make backdrafting worse. Ensure that your furnace has a proper return-air intake (not sealed off), that your range hood exhausts to the outdoors through a dedicated duct (not recirculated), and that your clothes dryer vents directly outside. In tight, modern Ottawa homes, you may need to install a fresh air intake or ensure that windows or doors can crack open slightly to relieve negative pressure — counterintuitive in a cold climate, but it works.

For gas fireplaces specifically, a direct-vent gas fireplace with its own sealed combustion air intake and dedicated exhaust vent is immune to backdrafting because it doesn't rely on room air or natural chimney draft. If backdrafting is making your current fireplace unusable, converting to a direct-vent gas insert ($2,500 to $5,500 installed) eliminates the problem entirely.

Important considerations: Backdrafting is not just uncomfortable — it's a potential carbon monoxide hazard. Smoke and gases backing into your living space mean combustion byproducts are entering the room air instead of venting safely outdoors. If you're experiencing regular backdrafting, install a battery-powered carbon monoxide detector on every level of your home near sleeping areas (Ontario law requires this anyway, but it's especially critical if backdrafting is happening). Test it monthly to ensure it's working.

Also be cautious about chimney caps that restrict airflow too much — you want wind resistance, not complete blockage. A cap that's too restrictive can create excessive back pressure and prevent the fire from drawing properly. The right cap allows smoke to exit freely in calm conditions while resisting wind-driven back pressure during storms.

Next steps: Have a WETT-certified chimney professional assess your specific situation. They'll check your chimney height relative to roof peaks and nearby obstructions, evaluate your home's pressure dynamics, test your chimney draft, and recommend whether you need a cap upgrade, chimney extension, inside-home pressure adjustment, or conversion to a sealed system. A Level 1 WETT inspection costs $250 to $450 in Ottawa and will identify exactly what's causing your backdrafting.

If you need a professional assessment or want to discuss chimney extension options and direct-vent conversions, you can browse fireplace and chimney contractors through the Ottawa Construction Network directory at justynrookcontracting.com/directory. Many local professionals have extensive experience solving Ottawa's specific wind and pressure-driven backdrafting challenges.

Looking for experienced contractors? The Ottawa Construction Network connects Ottawa homeowners with qualified professionals:

- Homeupgraders
- RenoMotion Inc.
- Galico Home Comfort Inc.
- Grunt Work 4 Grunts
- M.O.T. CONSTRUCTION INC.

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Q25

Can my Ottawa HVAC contractor install the venting for a direct-vent gas fireplace or must it be a TSSA-licensed gas fitter?

The venting system for a direct-vent gas fireplace must be installed by a TSSA-licensed gas fitter, not your HVAC contractor — unless your HVAC contractor also holds a G2 or G3 gas fitting license. In Ontario, any work involving gas appliances, including the venting components that connect to the fireplace, falls under TSSA jurisdiction and requires proper gas fitting certification.

This matters because the venting system is an integral part of the gas fireplace's safety system, not just a separate ductwork component. Direct-vent fireplaces use a sealed combustion system where the inner pipe carries exhaust gases out while the outer pipe brings fresh combustion air in. The connections between the fireplace unit and the vent pipe, the proper sealing of joints, and the correct termination at the exterior wall all directly affect the appliance's ability to operate safely without introducing carbon monoxide into your home. TSSA regulations treat this as gas work because improper venting can create the same deadly risks as faulty gas connections.

Many HVAC contractors in Ottawa do hold gas fitting licenses and can legally perform this work, but you must verify their credentials before hiring. Ask to see their TSSA license card and confirm the license is current. The contractor should provide you with a compliance tag after installation and documentation showing the work was performed by a licensed gas fitter. Your insurance company will require this documentation, and the City of Ottawa building department will ask for it if you need a permit.

Never assume your HVAC contractor can handle gas work without verification. Unlicensed gas work is illegal in Ontario, voids your home insurance, and creates serious safety risks. Even experienced HVAC professionals who work with furnaces and ductwork every day cannot legally touch gas fireplace components without proper TSSA certification.

If your HVAC contractor doesn't hold a gas fitting license, you'll need to coordinate between two trades — the HVAC contractor can handle any standard ductwork or electrical components, while a licensed gas fitter handles the fireplace installation and venting. This is common on larger projects and shouldn't significantly impact your timeline if planned properly.

When you're ready to move forward with your direct-vent gas fireplace installation, you can browse TSSA-licensed gas fitters and fireplace installers through the Ottawa Construction Network directory to find professionals who can handle the complete installation safely and legally.

Looking for experienced contractors? The Ottawa Construction Network connects Ottawa homeowners with qualified professionals:

- Justyn Rook Contracting
- RenoMotion Inc.
- Ottawa Masonry Contractor
- Prism Services
- Humble Homes - property maintenance

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