# EBOOK



NDTY

CHIMNEY-MASONRY-STOVE

Above and Beyond the call of duty!

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# Why Choose On Duty?

On Duty is a local, family-run business with decades of industry experience and superior customer service. We have a long-lasting reputation with all our 4,400+ customers, and have made close relationships with our vednors to keep us up to date on timely delivery ensuring that our customers receive their service as scheduled. Prompt and efficient provision is one of our top priorities at On Duty.

We have multiple systems in place to stay organized, with a technologically driven approach to afford the most convenience. Our technicians complete extensive training, both in large, industry-wide workshops and individual progress conferences that On Duty owner, Bryan, personally oversees. Their moral character, professionalism, and expertise reflect our core values that we hold in the highest regard. They will provide every solution possible to repair, replace, install, and improve your chimney system. Our customers have these options so they never feel limited with solutions and we go above and beyond to communicate with our customers so they know exactly what to expect.

We take pride in only using top quality materials, with several of them having lifetime warranties. From the office staff, to a field apprentice, to management, you can count on us to truly listen to your home improvement needs and deliver the best experience possible.

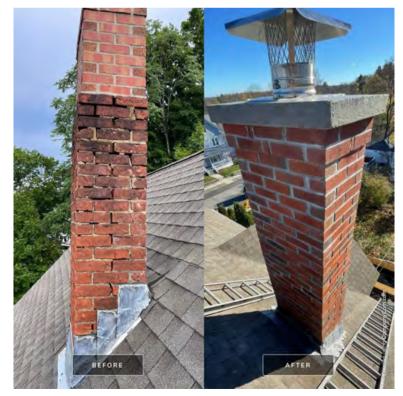
# **Chimney Repairs**

Our team of skilled professionals are dedicated to providing high-quality services that ensure safety, efficiency, and long-lasting performance for your home's heating needs. No matter the problem our expert technicians will get the job done correctly. Our team is skilled at handling the following repairs:

- Fireplace Repairs
- Cap Repairs
- Crown Repairs
- Flashing
- Liner Repairs
- Flue Repairs
- Repointing
- Full Rebuilds
- Stove Repairs







To see our team in action, check out our youtube channel! https://www.youtube.com/@bryanleblanc8017

# **Stove Installations**

Here at On Duty, we strive to bring you the best quality products. Napoleon & Regency stoves are crafted with the highest quality materials and will look great in any space. From wood burning, pellet to gas stoves, you will be sure to find one that's perfect for your home.



Regency Pro-Series Ci2700 Wood Stove Insert



Regency Hampton Hi1150 Wood Stove Insert



Napoleon Oakville X3 Direct Vent Gas Insert

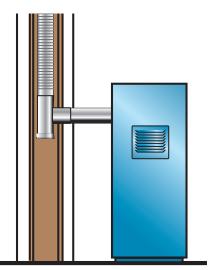
Please click for more information on stove models:

Napoleon

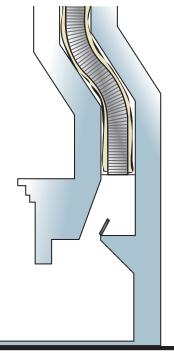
Regency

To browse Hearth Pads please visit: Ember King AJ Hearth Pads

# *The Armor Flex*<sup>™</sup> & *Hybrid*<sup>™</sup> *relining systems are the solution for every chimney.*

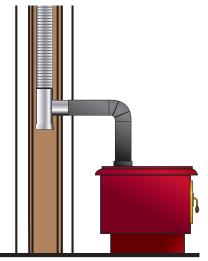


**Furnaces and water heaters** 

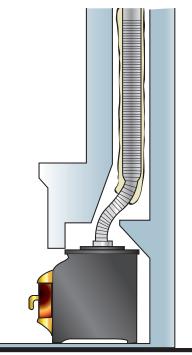


#### **Fireplaces**

Armor Flex<sup>®</sup> & Hybrid<sup>®</sup> liners are highly flexible pipes that can fit around the twists and turns of masonry chimneys.



Wood stoves and pellet stoves



#### Fireplace inserts

Armor Flex<sup>®</sup> & Hybrid<sup>®</sup> liners can be custom shaped to fit through tight damper spaces that exist in fireplace inserts. Wood and coal installations require insulation.





# WHAT'S HAPPENING IN Your Home safety analysis



**Disintegrating chimney** 



Cracked flue tile



Unlined chimney

## Condensation leakage

The condensation has migrated through the chimney causing staining damage to home interior and chimney exterior

## Chimney structure disintegrating

This has been caused by acidic moisture in the flue.

#### 🗌 Improper chimney draft

Caused by flues which are not properly sized for the heating appliance.

## Improper clearance

There is not enough clearance to the wood framing of the home.

## Cracked or missing flue tiles

This can lead to carbon monoxide leakage and a higher risk of a home chimney fire.

## Unlined or damaged chimney structure

This can lead to carbon monoxide leakage and a higher risk to the home from a chimney fire.

# **Down-drafting or smoking chimney**

Caused by the unsteady draft of an improperly lined flue.

# FAQ

# **Frequently Asked Questions**

# Why is my chimney breaking down?

The primary culprit in chimney breakdown is the acidic moisture that comes from condensed flue gases. This acidic moisture attacks the chimney from the inside.

That is why a chimney may look good on the outside, but the inside can be a totally different story! Years of normal use with hot and cold cycles and seasonal weather conditions all take their toll on a chimney.

# Where does the moisture come from?

Did you know that for every cubic foot of gas burned, two cubic feet of water vapor is created? That is a lot of water! How can this water vapor affect your chimney?

Water vapor always travels up your chimney - it is only when flue gases drop to 120°F that condensation begins. *When water vapor condenses, "rain clouds" form and it literally rains in your chimney!* Countless drops of acidic moisture soak the flue.

This is more of a problem now then it was in the past due to modern, high-efficiency furnaces. High-efficiency furnaces, as their name indicates, extract more heat from a given amount of fuel than conventional furnaces, and less heat is lost up the chimney.

However, since less heat is sent up the chimney, the temperature in the flue is often below 120°F. The acidic "rain" happens

frequently, and the flue seldom has a chance to dry out. Herein lies the side effect of highefficiency furnaces: excessive acidic moisture in the flue. In turn, this acidic moisture wreaks havoc on terra-cotta flues and masonry.

## What is the big deal with a few cracked flues?

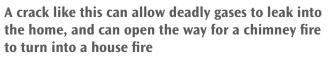
It happens thousands of times each year. Damaged chimneys equal disaster. Carbon monoxide quietly leaks unobserved through cracks in the flue lining and into the home. Even small amounts can make you

and your family sick. The risk of a chimney fire turning into a house fire is another serious risk. There are two ways that a chimney fire can ignite your home:

1) A chimney fire is like a huge torch, and the flames can escape through cracks in the flue tile and then through cracked mortar in the surrounding brick, and directly set your house on fire.

2) Chimney fires can rage at temperatures upwards of 2000 degrees. This extreme heat can bring structural materials surrounding the chimney to a flash point, and just by heat alone, can ignite materials in your house.

A few cracked flue tiles is serious business!







Damaged flue: Notice the moisture and the missing piece of flue tile.



This crack may be small, but it could open as wide as 1/4 inch when the flue is overheated.



# The Problem: dangerous chimneys



This chimney may look fine on the outside, but what about the inside?

#### **Home Safety**

Your chimney has a big responsibility. It carries toxic gas out of your home, and while doing its job, it must withstand constant attack by acid, creosote and extreme temperatures for years on end.

These conditions cause chimney damage and deterioration, and when that happens, your family's safety is in question. The risks of carbon monoxide poisoning and house fires become very real.

#### **Outside vs. Inside**

Look at the picture on the left. Most people would not see anything wrong with this chimney.

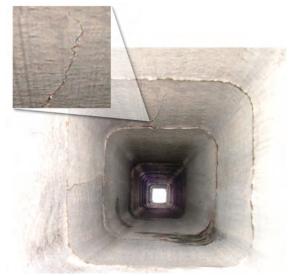
But there is more to the story. On the inside, the chimney could be seriously damaged, and not be up to safety regulations.

#### Old vs. New

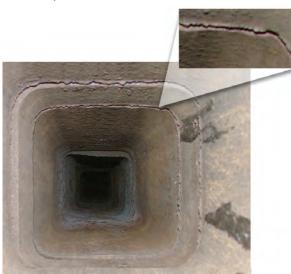
Old-fashioned chimneys were not designed to vent modern heating appliances

Besides, no chimney lasts forever.

Read more to find out about what is going on in your chimney.



Furnace Flue



Fireplace Flue

Because of the hostile environment, the inside of both flues of this chimney have deteriorated. Notice the cracked flue tiles (left) and the deteriorated joints and/ or misaligned flues (right). According to code, both flues should be relined.

# The Fireplace's Flue

This flue is servicing a fireplace, wood stove, pellet stove or other solid fuel appliance. It may have undergone a chimney fire, or have been connected to an improperly vented appliance, misused wood stove, or exposed to excessive moisture. A damaged flue brings the dangers of fire and carbon monoxide poisoning.

- Cracked or missing tiles • Eroded brick and mortar
- Joint between flue tiles not sealed • Flue tiles not aligned properly • Excessive or glazed creosote. • Improper chimney draft

# The Furnace's Flue

High-efficiency furnaces do not waste energy by sending heat up a chimney. As a result, temperatures in the flue drop low enough to produce condensation. This water combines with acids in the flue to create acidic moisture. Clay liners are particularly vulnerable to this acidic moisture assault.

- Flaking plaster and/or peeling wallpaper
- Staining on wall surfaces due to moisture
- Excessive moisture in gas or oil flues
- Excessive soot in oil furnace flues
- Chimney structure deteriorating
- Eroded or missing clay liner
- Carbon monoxide leaking into home
- Joint between flue tiles not sealed

**Fireplace** flue (or wood, pellet, etc.)

Furnace flue (gas or oil)

(For demonstration purposes, illustrations show most possible symptoms of a damaged chimney. Your chimney may not have every symptom, and still need attention.)

# **Chimney Fires**

Chimney fires happen when creosote builds up in the flue and ignites. These fires can rage at temperatures up to 2000 degrees and roar just inches away from your home. The intense heat alone can bring surrounding materials to the flash point, and ignite your home. Also, sparks from the fire can find their way through small cracks in the liner and quickly turn a chimney fire into a house fire.

Creosote is estimated to be involved in 14,720 (or 22%) home heating fires per year, and it is estimated to result in 4 deaths, 24 injuries and \$33 million in property damage per year. (Source: NFPA)

# **Carbon Monoxide**

Carbon monoxide (CO) is a colorless, odorless gas. Sometimes an early warning is flu-like symptoms, but CO can cause brain damage and death with no warning. A damaged furnace flue poses a real threat of carbon monoxide poisoning, because this gas can escape through the smallest crack. Also, a partial or complete collapse of the clay flue liner can block the flue, and quickly fill the house with deadly gas. Sadly this tragedy occurs in homes across the country every year.

Between 2001-2003, the CDC estimates that approximately 15,200 people were treated for unintentional non-fire carbon monoxide poisoning in emergency rooms and in 2005 there were an estimated 61,100 incidents reported, up 18% from 2003. 89% of the reported incidents took place in the home! (Source: NFPA)



Furnace flue (gas or oil) Fireplace flue (or wood, pellet, etc.)

# **The Armor Flex<sup>™</sup>** and/or **Hybrid<sup>™</sup> Solution**

Armor Flex<sup>™</sup> & Hybrid<sup>™</sup> are All-Fuel liners that are the ideal choice, especially when it comes to handling heavy creosote situations. These are manufactured from a stainless steel alloy that

is designed with a tight, corrugated seam that minimizes creosote build up. Its heavy durable structure withstands the effects of repeated cleanings. Armor Flex™ & Hybrid™ are the ultimate in heavy flex liners.

Armor Flex<sup>™</sup> & Hybrid<sup>™</sup> chimney liners are an excellent solution to the problems that plague most chimneys. Modern stainless steel walls provide an airtight and watertight barrier that seals in gases and creosote.

The Armor Flex<sup>™</sup> & Hybrid<sup>™</sup> liners are made of 100% 304L or 316L stainless steel. High quality stainless steel is an alloy made to withstand the acidic moisture and extreme temperature fluctuations inside your chimney. Armor Flex<sup>™</sup> & Hybrid<sup>™</sup> liners will even contain a chimney fire!

Underwriters Laboratories (UL) tested Armor Flex<sup>™</sup> & Hybrid<sup>™</sup>, and has awarded its seal of approval. UL has declared that the Armor Flex<sup>™</sup> & Hybrid<sup>™</sup> systems exceed standards for chimney safety and can even withstand a 2100 degree chimney fire and still maintain structural integrity.

Armor Flex<sup>M</sup> & Hybrid<sup>M</sup> liners carry the exclusive Forever Warranty<sup>M</sup>, the first warranty in the business that is transferable to the next homeowner. No fine print in *this* warranty, just peace of mind.

(Certain installations require the use of insulation. Consult your professional to determine if your installation requires that the liner be insulated.)





HEAVY DUTY FLEXIBLE LINE

FOREVER

NARRANTY



100% Stainless Steel

# **Cerfractory® Flue Sealant**

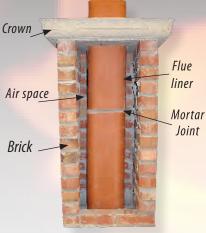
# **Chimney Repair & Relining System**

Improves Chimney Performance Eliminates Hazards Economical Eco Friendly Listed UL 1777 20 Year Warranty

"Restore your chimney with HeatShield®"

# **Anatomy Of Your Chimney**

Whether your chimney is used to vent a fireplace, woodstove, or furnace, most have sections of clay flue tile stacked one above the other to form a liner called the flue. The flue liner should be tightly sealed to protect the integrity and efficiency of your chimney. But over time, hidden dangers can develop that will compromise the safety and efficiency of your chimney.



# Are There Hidden Dangers In Your Chimney?

## **Gaps Between Flue Tiles**

The combustion process creates noxious gases that can contain creosote/soot, carbon monoxide, and corrosive chemicals. The purpose of your chimney is to safely vent hazardous flue gases from your home. Flue tiles are typically sealed with mortar to keep these gases



Actual photo of deteriorated mortar joint between flue tiles

within the flue. But over time, the mixture of heat, moisture, and chemicals will erode the mortar, leaving gaps or voids between flue tiles.

## **Cracked Flue Tiles**

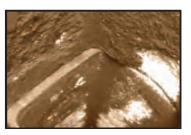
Flue tiles crack due to "sudden occurrences" such as a chimney fire, lightning strike, or seismic event. Cracks may also be caused by poor workmanship or settling of your home.

## Flaking Flue Tiles (Spalling)

Years of exposure to corrosive chemicals and moisture from combustion can attack clay flue tiles, causing pieces of the flue liner to flake off or delaminate, a process called spalling.



Actual photo of cracked flue tiles



Actual photo of spalled flue tile

## How These Hidden Dangers Can Affect You Fire & Health Risks

These defects, no matter how small, begin a process that will further erode the chimney and can pose a threat to your family's health. When heat, moisture, and gases escape through gaps or cracks in your chimney, they

deteriorate your chimney from the inside out. More importantly, the gaps and cracks can cause health risks, by allowing poisonous gases to escape into your home. Combustible creosote or soot can escape through these openings and build up outside the flue liner. If the creosote *build-up* were to catch fire in this area of your chimney, serious damage can occur, because the fire can no longer be contained within the flue. Pieces of flue tile that flake off due to spalling, can form dangerous blockages within your chimney.

## Loss Of Efficiency

To work correctly and efficiently, chimneys must be gas tight and free of gaps and cracks. Gases rising up through your chimney are similar to liquid being sipped through a straw. If the straw has a crack or hole in it the liquid will not flow effectively through it. Gaps or cracks allow excess air into your chimney, slow the updraft and make it harder for smoke and gases to rise up and out. Hence, the fireplace, woodstove, or furnace will perform poorly, resulting in loss of heat efficiency.

#### Chimney Safety Institute Of America (csia.org)

According to the CSIA (csia.org), problems such as gaps, cracks, and spalling in your chimney's flue can present serious risks to your home and family, because your chimney can no longer perform its intended function— to safely contain and vent the products of combustion to the outside.

#### **Building Codes**

Building codes and fire standards require that chimneys are structurally sound, durable, smoke tight and capable of conveying flue gases to the outside competely and safely.

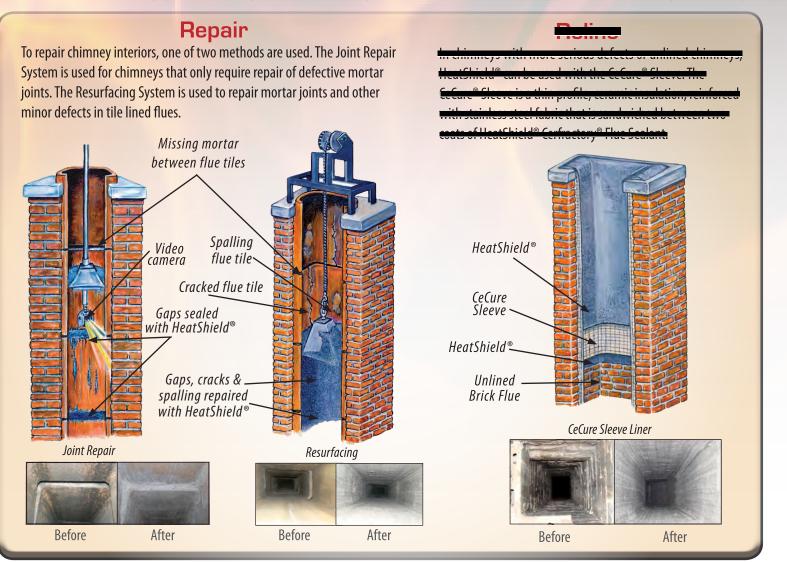
#### **National Fire Protection Association (NFPA)**

"If the flue liner in a chimney has softened, cracked or otherwise deteriorated so that it no longer has the ability to contain the products of combustion (i.e., heat, moisture, creosote, and flue gases), it shall be removed and replaced, repaired or relined..." NFPA 211- Standard for Chimneys, Fireplaces, Vents, and Solid Fuel-Burning Appliances (2006).



# **HeatShield Restores Your Chimney**

HeatShield<sup>®</sup> is a specially formulated "Cerfractory<sup>®</sup>" sealant material that restores the integrity of your chimney's flue to vent hazardous flue gases from your home. It eliminates the dangers in your chimney caused by gaps, cracks, and spalling for years to come. By using either the Repair System or the CeCure<sup>®</sup> Sleeve Reliaing System (depending on the defects found) your chimney will be restored to its original peak level of safety and efficiency.



## HeatShield® Takes The Heat– So You Don't Have To

Developed in Europe over 20 years ago, HeatShield's Cerfractory® technology is a hybrid (ceramic/refractory) coating and proven effective both in use and by independent lab testing. As a repair, it's been proven to withstand moisture, corrosive flue gases, and temperatures in



Actual disk of HeatShield Cerfractory heated with torch

excess of 2900°F. It's rated a "Super-Duty" refractory mortar per ASTM (American Society for Testing and Materials) C199. It surpasses both National Fire Prevention Association (NFPA) and International Residential Code (IRC) which require only a "Medium-Duty" refractory mortar for use in fireplaces and chimneys. It is an approved "all fuel" chimney liner and listed to UL 1777 by Warnock Hersey with the addition of the CeCure Sleeve. To learn more about HeatShield's<sup>®</sup> extensive testing, listing, and certification visit CeCureChimney.com.

## Your Chimney: Expertly Repaired

Independent HeatShield Installers are carefully selected based on their industry certifications and experience. Armed with factory training and specially designed tools, your HeatShield<sup>®</sup> professional can expertly repair your chimney. Special video cameras are used to verify completed repairs.

## **Economical And Environmentally Friendly**

HeatShield<sup>®</sup> is an "eco friendly" product made from recycled and naturally occurring materials. HeatShield<sup>®</sup> offers you and your chimney professional a less costly alternative to rebuilding your chimney or the destructive removal of flue tiles before the chimney can be relined.

### **20-Year Limited Warranty**

Whether your chimney requires repair or relining, HeatShield<sup>®</sup> is covered by a 20-year material warranty. Ask your HeatShield<sup>®</sup> professional for details.



Your Factory Trained HeatShield Professional:

# **PREMIUM CHIMNEY CAPS**



# LEAVES DEBRIS

Chimney caps keep unwanted things out of your chimney, reducing the chances of fires and deterioration. Caps also act as a spark arrestor keeping fiery embers inside and away from combustible material. Olympia Chimney makes the highest quality caps designed for superior chimney protection and a secure fit. Featuring the **FOREVER WARRANTY** and a near limitless selection of syles and shapes, Olympia caps are a top choice of homeowners and hearth professionals everywhere!

RODENTS



www.chimneycaps.net

# STAINLESS, COPPER OR GALVANIZED SINGLE-FLUE CHIMNEY CAPS

#### Features:

- Targeted Protection For Flues
- 8" Screen Height
- Adjusts To Fit 2<sup>1</sup>/<sub>2</sub>" Of Flue Deviation
- 3/4" Mesh

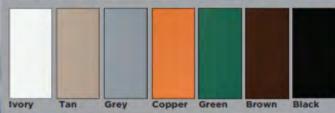


XXXXXXA

GALVANIZED

-84

## POWDER COATING AVAILABLE



50





#### FEATURES:

■ 3/4" Mesh

- Hinge Or Rigid Flange
- Stainless Steel Tapcons\*
- Self-Locking Serrated Flange Nuts
- Easily Adjusting Mounting Flanges
- Removable Lid





POWDER COATING AVAILABLE FOR STAINLESS CAPS



340



BASIC LID

# STAINLESS OR COPPER OUTSIDE MOUNT MULTI-FLUE

#### FEATURES:

- Snug, Yet Easily Removable Lid
- 3/4" Mesh
- 3" Vertical Skirt Standard. Other Lengths Available
- 2" Horizontal Skirt Is Standard. Other Lengths Available
- Stainless Steel Tapcons\*
- Drip Edge





**COPPER HIP & RIDGE AND STANDING SEAMS** 

1191100

STAINLESS HIP LID

1226024

YYY

POWDER COATING AVAILABLE FOR STAINLESS CAPS





# **BIG DRIPPER**

The Big Dripper chimney cap line offers the most comprehensive protection for the crown and the chimney from the elements. The cap is fabricated with a crown-like base that extends well beyond the outside of the chimney and includes a special drip edge. We call this "Advanced Drip Edge Technology". **The Big Dripper fits Corbeled or Straight Sided Chimneys.** 



#### POWDER COATING AVAILABLE



SLOPED BASE

www.chimneycaps.net

# STAINLESS OR COPPER POT TOPPERS

Pot Toppers offer an attractive way to protect chimneys equipped with chimney pots from rain and bird/animal intrusion. Pot Toppers are all made to order. They slip into the opening of the chimney pot and adhere with the included construction adhesive.

INLESS ROUND

ROOFTOP STYLE

CLAY ROUND

CLAY OCTAGON

COPPER OCTAGON

# SHROUDS

Our custom chimney shrouds are precision engineered and manufactured using the latest CAD and CNC machine technologies. Each shroud is built to exact dimensions. Before any shroud is built, we supply precise CAD drawings for approval. These are the finest shrouds on the market. Available in Top Mount, Corner Outside Mount and Full Outside Mount.

Go to www.chimneycaps.net to see more options.

OPEN TOP STYLE

# SPECIALTY

#### WIND DIRECTIONAL

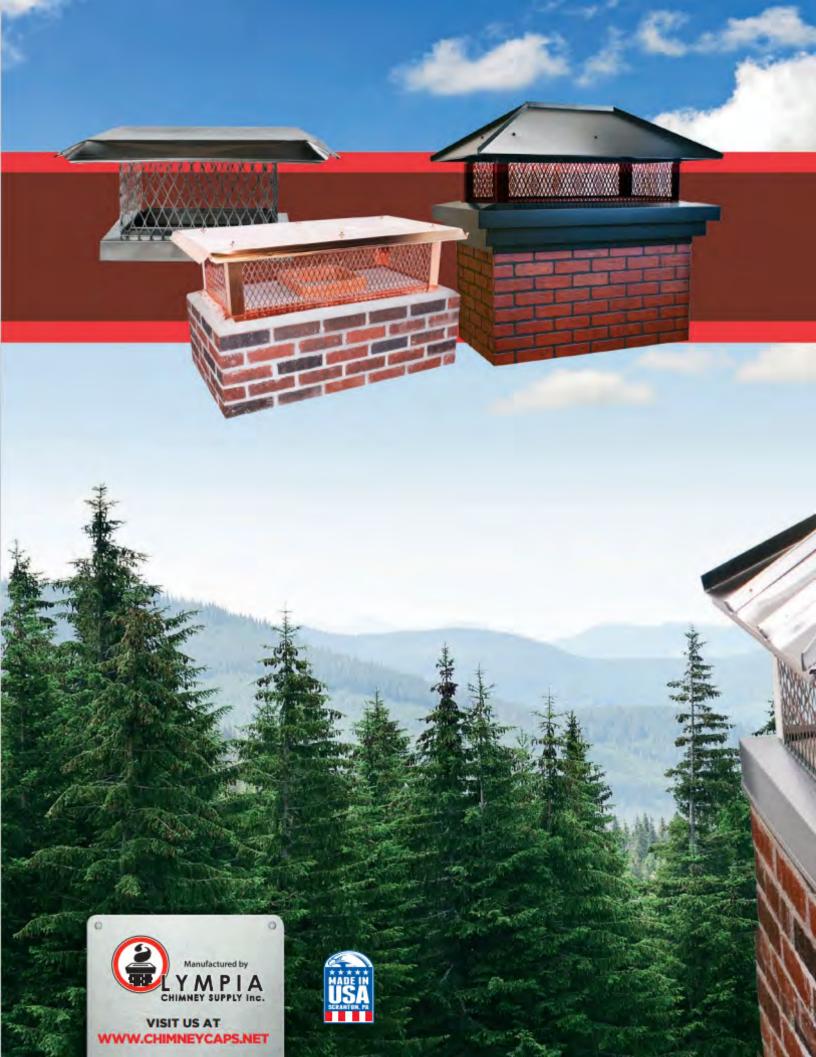
Helps prevent downdrafts

# WEATHERSHIELD®

Metal chimney cap for air insulated pipes VACU-STACK®

MAILBOX STYLE

For wind related downdrafts and backpuffing problems



# Financing

On Duty Chimney knows that chimney repairs can be a bit overwhelming and can be an expense that you may be unprepared for. While some repairs may be able to "wait", others really should not; as customer's home safety is our number one priority. This is why On Duty Chimney has partnered with finance company GreenSky to help our valued customers with the cost of their chimney repairs.

We offer multiple plans to fit your needs:

Plan 2832: Reduced Rate 12.99% APR for 120 Months

**Plan 9992:** Fixed Rate Plan 9992. Rates range from 7.99%-19.99% APR for 120 months. \*APR depends on customer's credit

**Plan 4123:** Deferred Interest Plan. Interest waived if amount financed is paid in full within 12 month Promo Period. 36 monthly payments required, including during the Promo Period. Rates range from 17.99%-24.99% APR.

For GreenSky FAQS: https://online.greensky.com/greensky/faq

GreenSky Customer Service: 1(866) 936-0602

GreenSky is a financing option by Goldman Sachs Company. All plans subject to credit approval.

# Frequently asked Questions

#### How often should I get my flue cleaned?

We recommend that ALL flues get cleaned at least once a year. This includes oil, gas, wood stoves, fireplaces, pellet stoves, inserts, and factory built fireplaces. If it does not need to be cleaned, we will perform an inspection to make sure that the chimney is safe for continued use.

#### When should I call for an appointment for the winter?

Believe it or not, we HIGHLY recommend you call us in the summer to get on the schedule before the winter season. Our schedule fills up quickly and we want to get all of our customers on our schedule in a timely manner. You can even call us in the spring at the end of the current burning season to make sure you are ready for the fall.

#### How do you clean my chimney?

#### We start at the bottom and work our way up!

We lay down tarps to ensure your home stays just as clean when we leave as it was when we got there. We have special brushes, tools and equipment that can move around the toughest bends and corners to ensure that the chimney is fully cleaned and safe for use.

#### What is an inspection for?

An inspection determines if there is damage or blockages inside the flue, which can result in carbon monoxide leaking into your living space or even a fire. Inspections are very important and make sure your flue is safe and in proper working order.

#### Do you do free inspections or estimates?

Unfortunately, we do not provide free inspections or estimates. Our technicians take anywhere from an hour to two hours inspecting your flue for damage, deterioration, and any other repairs that might need to be made. We take time and resources to look at your chimney and provide you with our most accurate estimate for repairs that we recommend you make to your chimney, if there are any that need to be made.

# Frequently asked Questions

#### What services do you provide?

Inspections, cleanings, installations, masonry, flashing repair, troubleshooting, flue repairs, dryer vent cleanings and more! Please visit ondutychimney.com for the most up to date list of services.

#### Do you come out year-round?

Yes, we do! We are a year-round business, rain or shine we are out to service our customers. Bearing dangerous heat, snow, or storms, we are doing repairs, inspections, and cleanings. We will return to finish an inspection if we cannot gain access to a roof due to weather.