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Flue Fire Prevention Awareness

Introduction

Doughpro Ovens are one of the leading manufacturers of stone hearth ovens in the United States. Stone Hearth Ovens are simple to operate and virtually maintenance free however dangerous situations can occur if the ductwork is not cleaned regularly.

Over the years there have been a number of fires in wood burning ovens which in our opinion resulted from incorrect façade installation and inadequate cleaning of grease laden ductwork. These fires could have been prevented if the installers/operators would have adhered to the guidelines contained in our Installation and Operation Manual.

Pages 3 to 6 of this document highlight the most common errors which can cause an exhaust fire and how they can be prevented.

Page 6 identifies additional safety options available to our clients to further reduce the risk of fire hazard.

In August 2008, we released a revised Installation and Operational Manual containing detailed illustrations which comprehensively addresses all aspects of the installation and operation of our stone hearth oven range. A PDF copy is attached or a hard copy is available by contacting our office.

To ensure the safe operation of a stone hearth oven, it is critical that Designers, Installers and Operators read and follow the advice outlined in our Installation and Operation Manual.

For further information on any of the issues mentioned in this document, please contact the Doughpro support team at;
support@doughpro.com

or by visiting our website at;
www.doughpro.com

Overview

Fires have occurred in wood burning ovens for 3 main reasons:

Potential cause

As described in the diagram on page 3, grease fires have occur due to a build-up of grease in the spigot. This build-up of grease is ignited by a flash fire, igniting the contaminates in the duct above.

Solution: Clean the oven spigot weekly to eliminate grease build-up.

Fire behind the façade

Potential cause

As described in the diagram on page 5, poor sealing between the façade and the oven lintel (*spigot*) leading to grease contamination between the façade and outer spigot wall. This grease contamination is then ignited (*as in 1 above*) by a flash fire.

Solution: Ensure that the area above the oven door and façade is fully sealed with a fire proof material (*refer diagram on page 6*)

Excessive flue temperatures

Potential cause

Excessive flue temperatures can potentially lead to combustion within the flue/duct system.

Solution: Ensure that the duct damper is correctly adjusted, the fan is correctly sized and that the cool air make-up unit is functioning correctly.

Potential Improvements

Page 6 outlines one potential improvement to the ducting system to address the above mentioned issues. These improvements are recommendations only. Contact Doughpro Ovens head office for further information.

2. Potential cause of fire behind the façade

Poor sealing between the façade and oven door leads to grease contamination between façade and oven wall. This grease contamination is then ignited by a flash fire off the grill.

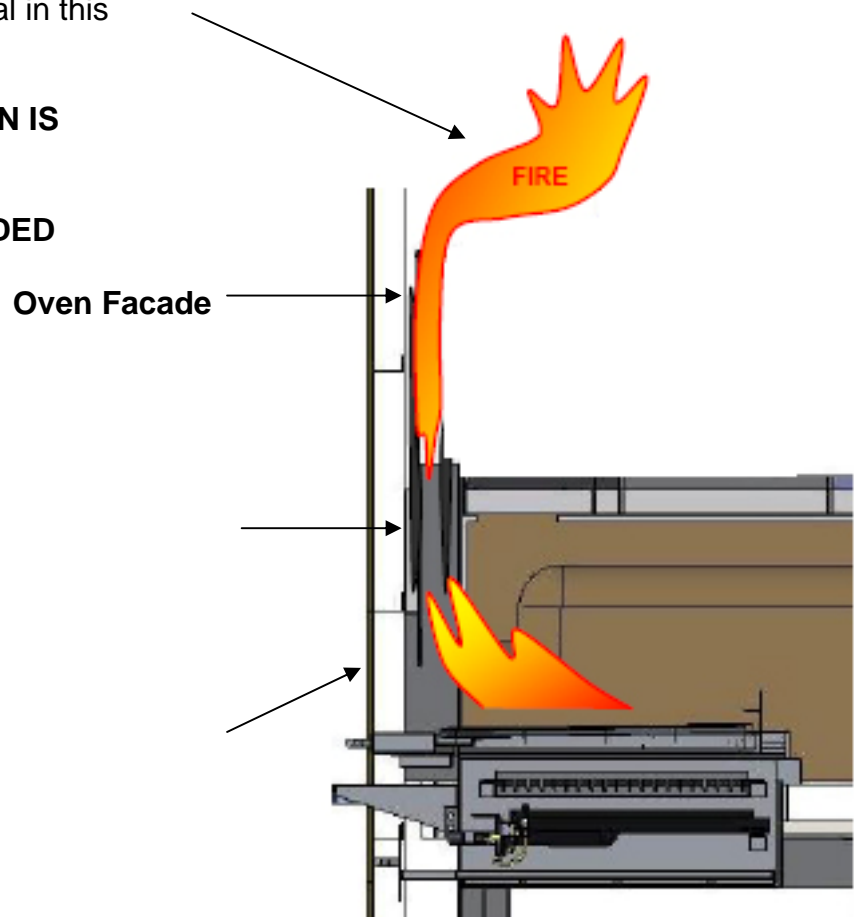
Solution: Ensure that the area above the oven door and façade is fully sealed with a fire proof material.

B. The fire, fuelled by a residual build up of grease, is drawn into the area above the oven igniting any flammable material in this area.

IT IS ESSENTIAL THAT THE OVEN IS INSTALLED CORRECTLY IN ACCORDANCE WITH THE INSTALLATION MANUAL PROVIDED

A. Grease build up between the façade and spigot ignites from flash fire on Char Grill

THE AREA BETWEEN THE SPIGOT AND THE FAÇADE MUST BE SEALED WITH A FIREPROOF MATERIAL E.g. METAL STRIP



Spigot Maintenance



IMPORTANT: *Be sure to follow the Maintenance instructions as outlined in the Installation and Operation Manual.*

Daily Checks

1. Cleanliness: No debris or rubbish left around, under or in the oven area.
2. Draft at the spigot above the mouth should be noticed when the exhaust fan is operating. For simple airflow measurement advice refer to **A4 Paper Test** in the Installation and Operation Manual or from the Pre-Fire Checklist document on the Doughpro website. www.doughpro.com
3. For ovens with a **Char Grill**, the grill, spigot and surrounding area should be cleaned of grease build up daily (*See below*). More regular cleaning of the flue and oven spigot area may be required depending on the amount of grease produced.

Weekly Checks

1. The Spigot area of the oven, above the mouth or door of the oven, Should be cleaned of build-up at least once per week (*7 days*).



Spigot Cleaning Brush

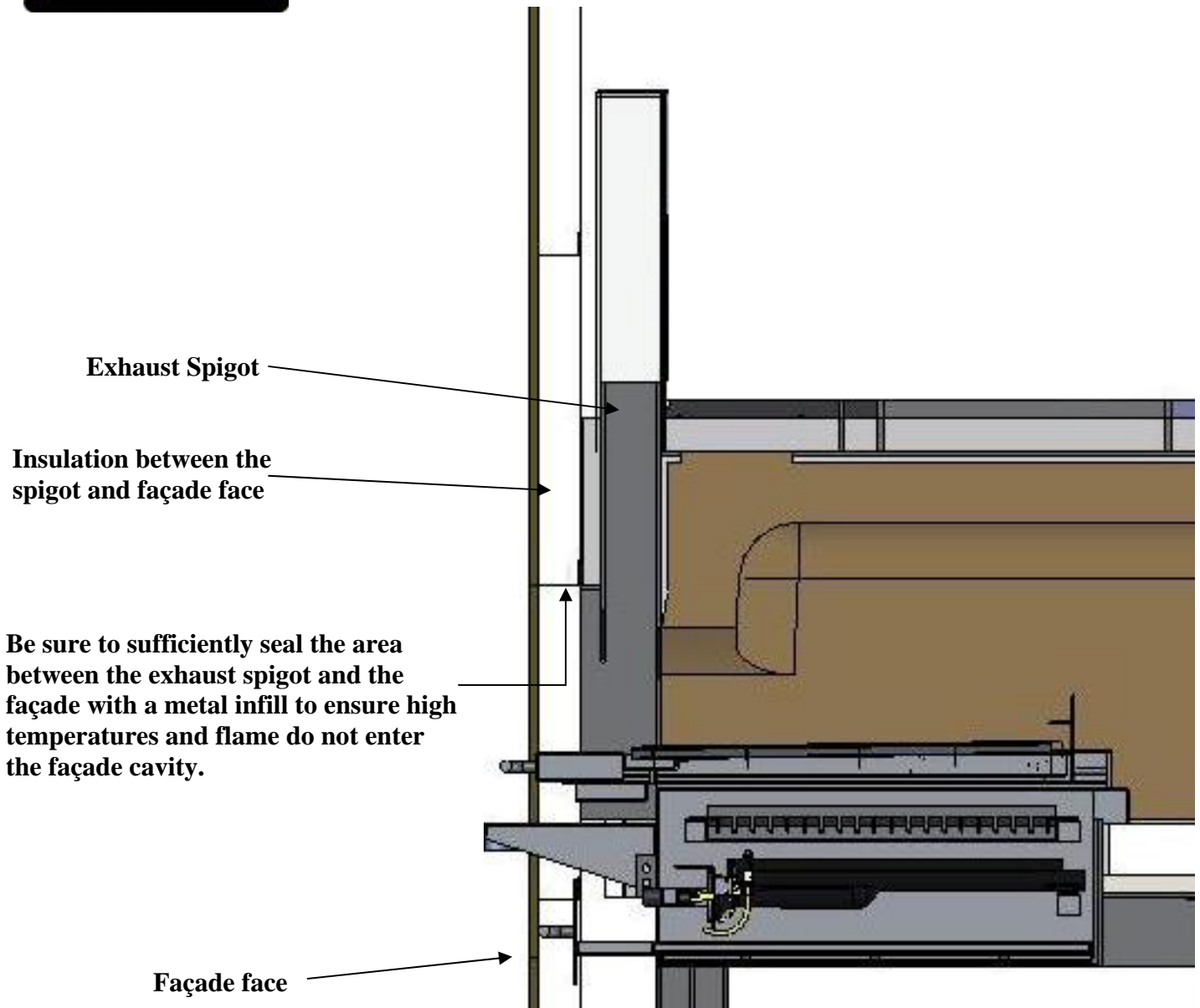


Be sure to clean the spigot thoroughly, all the way to the top of the spigot adapter.

Façade Installation Warning



An important area to be aware of is directly in front of the exhaust spigot of the oven. If the facade protrudes from the spigot there may be an area between the spigot/lintel and the facade which is left uncovered and vulnerable to soot and grease build-up. This area is commonly overlooked when constructing the oven facade and if not sufficiently sealed creates a **fire hazard**.



Potential Improvement 1 (*Recommended*)

The installation of a canopy has several benefits.

1. Easy access to filters for regular cleaning
2. Visible break between spigot and canopy to alert if flash fire should occur
3. Better access to oven spigot to allow for regular cleaning
4. Allowance for an independent Tyco/Wormald/Ansul wet chemical fire protection system to be fitted

