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► 1.0 OVERVIEW AND OBJECTIVE

1.1 OBJECTIVES

In this course, you will learn about the various components of wood-burning fireplaces, and the functions of those components.

This is not a code-compliance course. It's a performance-based course. There are a number of codes that apply to fireplaces, and they change regularly.

It is not our goal to turn you into a certified fireplace inspector. You won't be able to troubleshoot, install or repair fireplaces based on what you learn in this course. There are many places to go to learn more about wood heat, and we encourage you to expand your knowledge.

By the time you finish this course, you'll be able to spot some of the common vulnerabilities in fireplace construction or design. Whenever you are in doubt, however, do not hesitate to contact a wood-burning fireplace specialist, since the more serious implications of some of these defects can be life-safety issues.



Wood-Burning Fireplaces

STUDY SESSION 1

1. This Session includes an introduction to wood-burning fireplaces. We talk about the basic components and accessories of fireplaces. We also discuss footing and foundation problems and hearth problems.
2. At the end of this Session you should be able to –
 - List three types of wood-burning fireplaces
 - List eight components of wood-burning fireplaces
 - List four common accessories to fireplaces
 - Define pyrolysis
 - List clearance requirements from:
 - Cleanout doors
 - Firebox openings
 - Firebox walls
 - Chimneys
 - Combustion air inlet ducts
 - List five footing and foundation problems and their implications
 - List seven hearth problems and their implications
3. Quick Quiz is included at the end of this Session. You may write the answers in the book.

Key words:

- **Masonry fireplace**
- **Metal firebox**
- **Factory-built fireplace**
- **Zero clearance fireplace**
- **Free standing fireplace**
- **Combustible clearance**
- **Pyrolysis**
- **Fireplace draft**
- **Hearth extension**
- **Inner hearth**
- **Raised hearth**

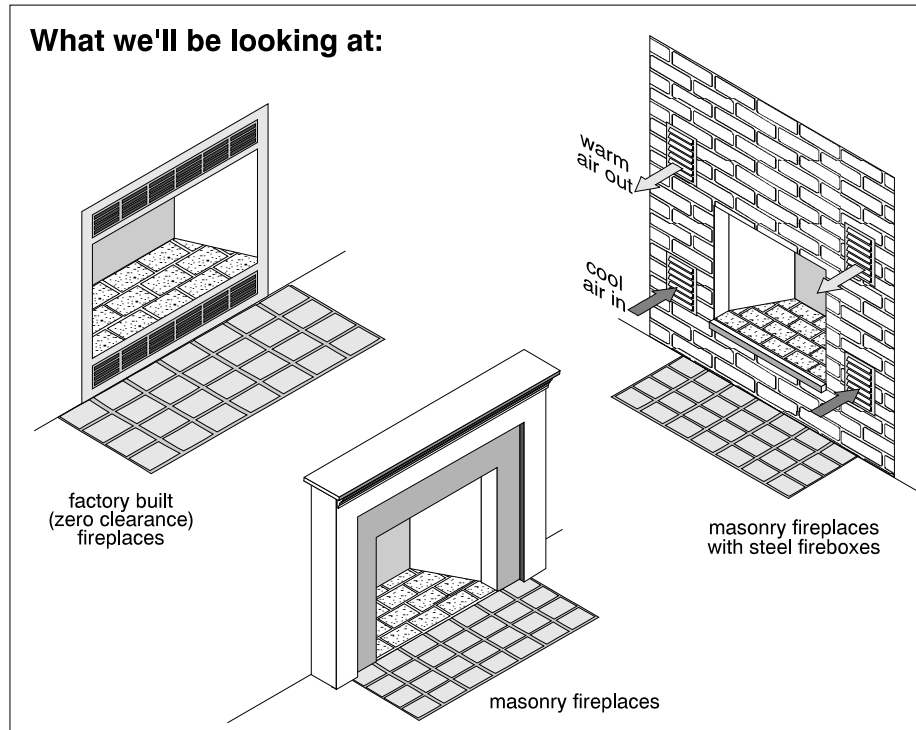


► 2.0 WOOD-BURNING FIREPLACES

Scope

In this section we are going to be looking at wood-burning fireplaces. This includes—

- masonry fireplaces
- masonry fireplaces with steel fireboxes
- factory-built (zero clearance) fireplaces



Chimneys Excluded

We are not going to look at chimneys, flues, flue liners or caps.

Let's briefly describe what we are looking at:

Masonry Fireplaces

Masonry fireplaces are simple. The majority of the components are masonry, including the firebox. The damper is metal and some of the other accessories may be metal. The hearth, foundation and footing are usually concrete or masonry.

Masonry Fireplace, Steel Firebox

Some masonry fireplaces are built with a **steel firebox**. The firebox usually has an integral **damper** and **smoke chamber** as part of the manufactured unit. Steel fireboxes are usually double wall with air circulating between the two walls. Heat circulation (heating room air by passing it through the double walls) is a common feature of steel fireboxes.

