SIMPSON

# DURATECH<sup>®</sup> ALL-FUEL CHIMNEY SYSTEM

TOOLED TO PERFECTION FOR THE CHIMNEY PROFESSIONAL, DURATECH CHIMNEY SETS A NEW STANDARD



### All-Fuel Chimney System

Designed to stay cool on the outside, provides a hot draft on the inside, and has a firesafe design that protects both the chimney and the building. DuraTech Chimney is designed for appliances that are tested and listed for use with a 2100° F HT chimney system, such as wood stoves, fireplaces, furnaces, boilers, stoves, ranges, water heaters, or other appliances fueled by wood, oil, coal, or gas.

### ENGINEERED EXCELLENCE

Our Thermal Tech blanket insulation, encased between dual walls of stainless steel, offers the optimum in safety and performance. It keeps the outer wall of the chimney cool, while ensuring high flue gas temperatures for optimum draft performance. DuraTech's sleek inner and outer walls are made of 430 stainless steel. DuraTech is also available with a galvalume outer. The inner wall is 25% thicker than competitive chimneys for an extra margin of safety. The DuraTech Chimney system is designed for use with gravity-vented appliances, including wood stoves; fireplaces; appliances using oil, gas, or coal; and zero clearance fireplaces that are factory-built.

## THERMAL TECH INSULATION

• Thermal tech blanket insulation keeps the outer wall of the chimney cool, while ensuring high flue gas temperatures for optimum draft performance.

• Encased between dual walls of stainless steel, flexible blanket insulation permits the chimney liner to expand in the event of a creosote fire.

 This eliminates buckling and loss of structural integrity associated with solid-pack type insulation.

### EASE OF INSTALLATION

• DuraTech's sleek 1" wall design provides for easy installations, such as installation through 16" on center rafters. DuraTech requires 2" clearance to combustibles.

• Light-weight insulation, combined with twist-lock fittings, provides for ease of installation. No locking bands or mechanical fastners required.

- DuraTech support boxes feature factory installed twist-lock fittings.
- DuraTech elbows offer new swivel 360° rotation at base.

### Now Listed for U.S. and Canada

DuraTech 2100° F chimney is tested and listed to the UL 103 ht standard, UL file #MH7399. Designed for normal continuous operation at 1000° F flue gas temperatures, DuraTech (5"– 8" diameters) was subjected to rigorous and stringent UL testing including one hour at 1400° F, plus three ten-minute chimney fire tests at 2100° F. DuraTech 1700° F chimney (10"– 16" diameters) is tested and listed for continuous operation at 1000° F flue gas temperatures, one hour at 1400° F, and three, ten-minute chimney fire tests at 1700° F, in accordance with the UL 103 test standard.

In Canada, DuraTech is cUL approved as a Class A Chimney for use on approved fireplaces and oil-burning appliances. DuraTech Chimney is now approved in Canada for use on Zero Clearance fireplaces. DuraTech has been listed to the Candian S610 standard. Please consult your fireplace manufacturer for approvals on their appliances.

Limited Lifetime warranty.





#### **SIMPSON DURATECH**<sup>®</sup> ALL-FUEL CHIMNEY SYSTEM

### APPLICATIONS

The DuraTech 2100° F chimeny system, offered in 5", 6", 7", and 8" sizes, is designed for use with gravity-vented appliances that are tested and listed for use with a 2100°F HT chimney system, including:

Wood Stove, Fireplaces, Oil, Gas, and Coal-fired appliances, Zero clearance, factory built fireplaces. Black available in 6", 9" and 12" lengths.

The DuraTech 1700° F chimney system, offered in 10", 12", 14", and 16" sizes, is designed for appliances that are tested and listed for use with a 1700° F chimney system, including:

New, or restoration of, existing masonry fireplaces. Wood, Oil, Gas, and Coal-fired appliances. Available in galvalume outer and stainless steel inner walls.



| Illustration Key |                                                                |
|------------------|----------------------------------------------------------------|
| 1                | DVL or DuraBlack                                               |
| 2                | Ceiling Support Box                                            |
| 3                | Wall Thimble                                                   |
| 4                | Chimney Pipe                                                   |
| 5                | Attic Insulation Shield                                        |
| б                | Flashing                                                       |
| 7                | Storm Collar                                                   |
| 8                | Chimney Cap                                                    |
| 9                | Elbow                                                          |
| 10               | Elbow Strap                                                    |
| 11               | Tee with Tee Cap                                               |
| 12               | Tee Support                                                    |
| 13               | Chase Top Flashing                                             |
| 14               | Base Tee/Double Tee                                            |
| 15               | Anchor Plate                                                   |
| 16               | Firestop Radiation Shield*                                     |
| 17               | Roof Support                                                   |
| 18               | Finishing Collar                                               |
| 19               | DVL Adapter, DuraBlack Slip<br>Connector, or Snap-Lock Adapter |
| 20               | Stove Adapter                                                  |

#### **Typical Installations**

Refer to our Typical Venting Installation drawings to select the appropriate component parts for your installation.

A DVL/DuraBlack Chimney Adapter must be used when connecting DVL pipe to a ceiling support box or finishing collar. When connecting DuraBlack pipe, a DuraBlack Slip Connector or Snap Lock Adapter must be used.

A Wall Thimble must be installed with an appropriate length of chimney pipe for all horizontal through-the-wall installations. To accommodate thicker walls, the telescoping pieces can be separated, and a field-fabricated extension may be installed.

An Attic Insulation Shield must be used in all installations that pass through an attic, regardless of whether the attic is insulated or not.

A Firestop Radiation Shield must be used when a chimney passes through a floor or ceiling without a support box.



\*not shown

#### HOW TO PLAN YOUR CHIMNEY INSTALLATION

| Step 1 | Measure the diameter of the appliance flue outlet. Select chimney and DVL, or DuraBlack stovepipe, with the same size flue dimension as the appliance. For fireplace installations, refer to the sizing chart in the back of this catalog.                                                                                                                                                                                                                                                                                                                                                                   |
|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Step 2 | Measure the roof pitch. For example, a 6/12 pitch has a vertical rise of 6" over a horizontal distance of 12". Select the appropriate flashing. See Figure 1.                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Step 3 | Determine the minimum chimney height above the roof line. Building codes require a minimum of 3' above the roof penetration, and at least 2' higher, than any portion of a building within 10'. See Figure 1.                                                                                                                                                                                                                                                                                                                                                                                                |
| Step 4 | If an offset is required to avoid rafters or other obstructions, measure the horizontal distance required and the vertical height available. Both 15° and 30° elbows are available. Please note that 45° elbows are not allowed in the United States. Refer to the offset tables in the back of this catalog. Use elbow straps to ensure adequate support. See Figure 2.                                                                                                                                                                                                                                     |
| Step 5 | Determine the total length of chimney and stovepipe required for the installation. To calculate the installed per length of $5''-8''$ diameter DuraTech pipe, subtract $1\frac{1}{4}''$ per joint. For $10''-16''$ diameter lengths, subtract $3\frac{3}{4}''$ per joint of pipe. Subtract $1\frac{1}{4}''$ per joint of DVL close clearance pipe. Minimum chimney height, at sea level for a straight vertical chimney, is $10'$ to $15'$ above the appliance outlet. Higher elevations, or the use of elbows or a tee, will require approximately 30% to 60% more height to provide for an adequate draft. |



Figure 1



#### CHIMNEY DESIGN RECOMMENDATIONS

The following design recommendations are intended only as a general guideline to assist in the design and selection of chimney components for your installation. Read and follow the DuraTech installation instructions before installing your chimney system.

• The size of the chimney should match the outlet size of the appliance. An improperly sized chimney results in poor draft and excessive creosote formation.

- If possible, avoid offsets that serve to restrict the natural draft. A straight vertical installation is more efficient and less likely to develop creosote.
- Install the chimney in the interior of the structure whenever possible. A cold exterior chimney will produce less draft and will generate more creosote.

• Be fire-safe! Maintain the minimum 2" clearance (air space) to combustibles. Use proper support and bracing. Follow local building codes and have your chimney inspected.