TESS Fireplaces for the Hearths of America

The Hearth:

literally the joining of the **Home** and **Earth** - it has been the center of domestic life since the earliest traces of man. The fire has served to warm, heal, protect and comfort us; the masonry edifice has cooked our meals and provided a golden radiance that draws people together. Over the millenia, the masonry fireplace has evolved to become the American architectural feature most associated with the traditional values of family life.

Historical reverence aside, the masonry fireplace has been facing modern, necessary challenges. Thermal Energy Storage Systems, Inc. has met these challenges – energy efficiency, cost competitiveness and clean air. Through the use of pre-engineered, modular masonry components and superior heat-retaining materials, TESS has applied contemporary technology to the "hearth" and re-established its contribution to the home environment while still providing us with physical and spiritual sustenance.

As you read through this book, take time to imagine how versatile TESS modular systems can be for you: brick, stone, stucco, marble and tile finishes are only some of the many possible finishing materials. This design flexibility will enhance a home of any style with your personal signature.

So, when visitors arrive, you can once again offer the time-honored tradition of graciousness: share with them the warmth and magic of your fire.

TESS models 148 and 136 are the most advanced masonry fireplaces manufactured in North America. By combining time-honored, proven heat storage principles with innovative, pre-engineered construction, the patented TESS Heat-Storing Fireplaces bring you the best in fireplace technology.

A masonry fireplace that will help heat your home

A traditional masonry fireplace can lose almost all the heat it produces up the chimney, along with some warm room air. TESS Heat-Storing Fireplaces capture the heat of the fire and use it to help heat your home.

This remarkable heat saving process begins in the firebox. The modified-Rumford firechamber reflects immediate heat from the fire directly into the room . . . much as a bandshell reflects sound to an audience.

Above the firechamber, heated gases travel through a massive heat storage area containing heat transfer passageways, that capture and store the heat.

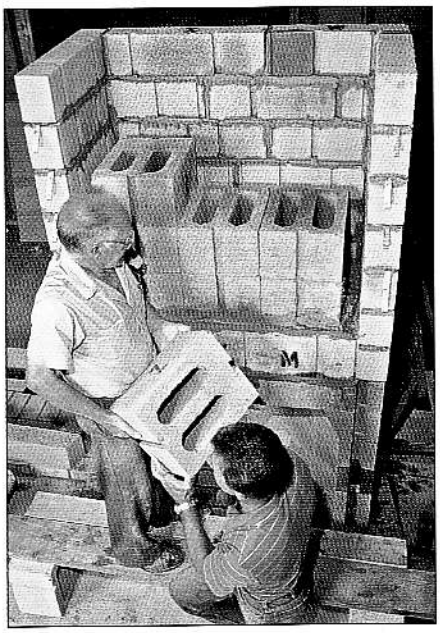
Now the real beauty of the heat storage design comes into play. Heat stored in the masonry mass is given off - gradually and steadily - for over 24 hours after the fire has gone out. With thousands of BTU's stored in tons of masonry, a TESS Heat-Storing Fireplace is capable of supplying enough radiant heat to contribute significantly to the heating requirements of your home.

Efficient and Clean Burning

The results of efficiency tests conducted at Shelton Energy Research of Santa Fe, New Mexico indicated that TESS Heat-Storing Fireplaces are up to four times more efficient than conventional masonry fireplaces.

Some of the energy produced by the fire is radiated directly into the home while the fire is burning. A significant portion of the energy released is stored in the masonry mass, in contrast to a conventional masonry fireplace where this energy is simply lost up the flue.

TESS Fireplaces also proved to be significantly cleaner burning over a typical 24-hour heat output cycle than most wood stoves in common use today.



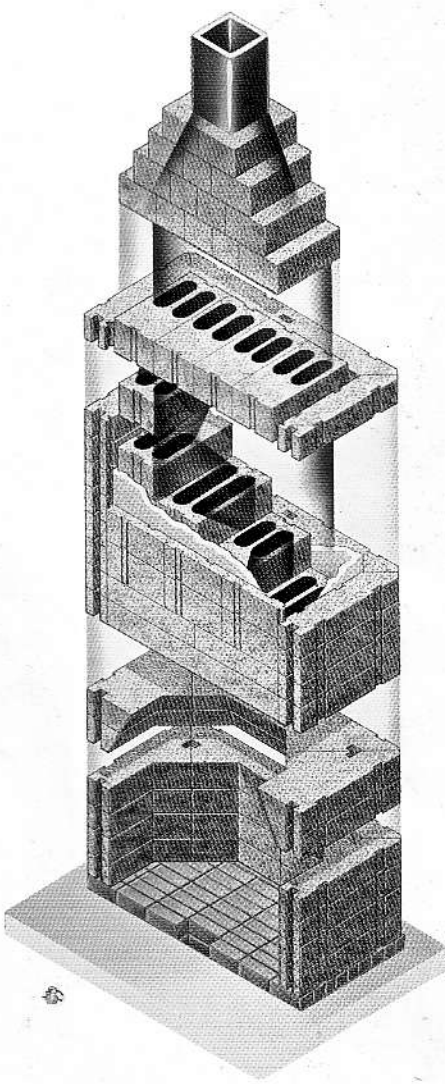
Modular components for fast, easy construction

An experienced mason with a helper can put up the core of a TESS Heat-Storing Fireplace in less than a day. The simplicity is in the design because all the correct shapes and angles are pre-engineered. The builder has only to mortar the components together while keeping them plumb and level. The result is reduced construction time and performance you can count on.

Outstanding features that set TESS Heat-Storing Fireplaces apart

- Outside air ducted directly to the fire, for greater comfort and performance.
- Chimney Top Damper which seals out weather and reduces heat lost up the flue.
- Adapts to either a conventional masonry chimney, or to a pre-fabricated metal chimney.
- Facing material can be customized to enhance any architectural style. Brick, tile, stone, slate or plaster are just a few of the possibilities.
- Available in two widths: Model 148 has a 48-inch wide firebox, Model 136 has a 36-inch wide firebox. Also available with a 5-course heat exchanger or a 7-course heat exchanger. (see the specification chart, p. 9 for ceiling height requirements)

For optimum performance, it is recommended that TESS Heat-Storing Fireplaces be constructed within the insulation envelope of the house.



Above the firechamber of the TESS 148 and 136, heated gases pass through a carefully engineered heat storage area. This masonry mass stores the heat, to be given off - gradually and evenly - for over 24 hours after the fire has gone out.

A TESS Fireplace Model for Every Need

TESS Radiant Fireplaces are ideal where occasional fires are desired, and when heating efficiency is not a primary concern.

TESS Radiant Fireplaces can be located either within the home or along an outside wall. They may also be desirable in a second floor installation when a TESS Heat-Storing Fireplace has been built on the first floor.

The TESS T48 and the T36 Fireplaces feature the same five sided, modified-Rumford firechamber found in TESS Heat-Storing Fireplaces.

The unique shape of this firebox has its roots in the Rumford-style fireplace of the 18th century, long acknowledged for its superior ability to radiate heat from the fire into the room.

Both the T48 and T36 Radiant Fireplaces are constructed using the TESS modular masonry component system. The durable, refractory masonry components are pre-engineered, with all the complicated fireplace angles built in, reducing the likelihood of job site errors.

While it would take a skilled mason and hundreds of bricks to build the fire and smoke chambers of a conventional masonry fireplace, the completely assembled core of the T36 is comprised of only 37 masonry components.

TESS Fireplaces will Accommodate the Convenience of Gas Logs

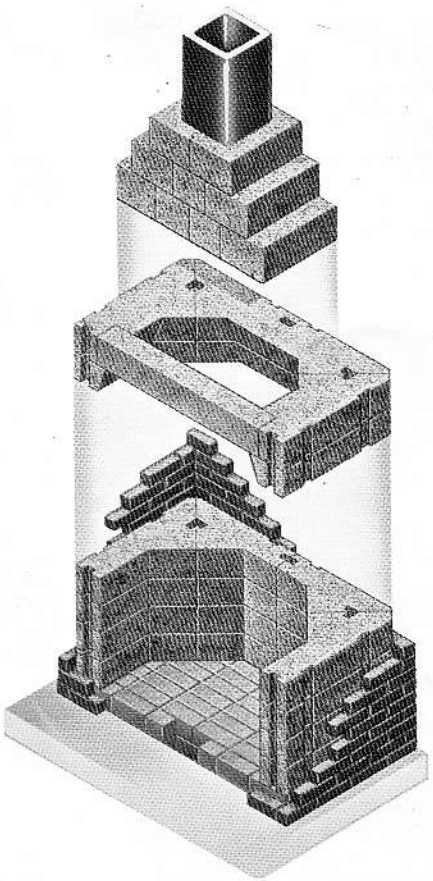
If you choose to install one of the many authentic-looking gas log sets or gas log lighters, the hearth of your TESS Fireplace can be easily modified during construction to accommodate direct gas lines.

Special features provide design flexibility

- Two models from which to choose: The TESS T48 has a 48-inch wide firebox, the TESS T36 has a 36-inch wide firebox.
- May be constructed either inside the house or on an outside wall of your house.
- May be adapted to either a conventional masonry chimney, or to a prefabricated metal chimney.
- Both fireplaces provide outside air for combustion, resulting in livelier fires and reduced floor drafts.
- While a chimney top damper is recommended, a traditional throat damper may also be used with the T48 and T36 Fireplaces.
- As with the heat-storing models, you choose your own exterior facing material. This gives you maximum flexibility to blend the appearance of your fireplace with the interior design of your home.

All of these unique TESS features make the T48 and T36 Fireplaces today's superior alternative to conventional, site-built masonry fireplaces.

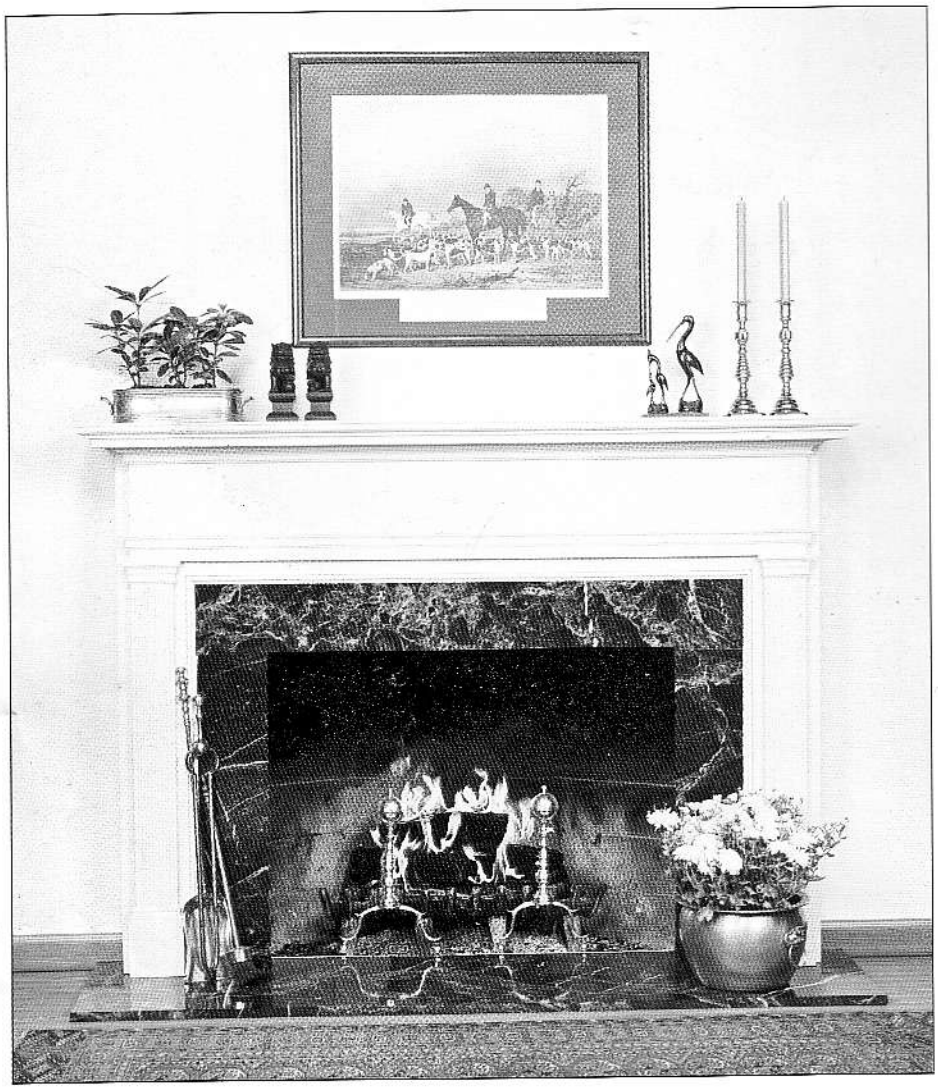
The molded masonry components form the firechamber of the Radiant Fireplace. This modular design insures proper fireplace construction, consistent quality and optimum performance.



The T48 and T36 Fireplaces are built quickly and easily using the unique TESS modular masonry component system. Both fireplaces feature a modified-Rumford firebox, known for its superior heat radiating characteristics.

Radiant Fireplaces

Traditional Series Fireplace



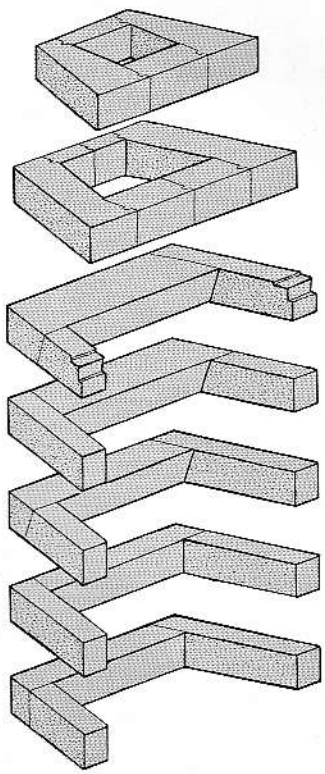
Simplicity of design and ease of assembly lend the Traditional Series Fireplace to owner-builder applications.

The Traditional Series firechamber brings our innovative modular design to classic, 3-sided fireplace styling. Each block component is clearly labeled for trouble-free assembly.

The TESS Traditional Series Fireplace offers the simplest construction of any TESS Fireplace model. And it does this without compromise by combining the durability of 100% masonry with the charm of a traditionally shaped firebox.

The Traditional Series Fireplace features a 36"-wide firebox, and is built using just 25 pre-engineered and labeled masonry components. As a result, the Traditional Series components can usually be built in less than 2 hours! Once the fireplace core is completed, you have the option of choosing which facing material will best fit the style of your home, as well as which chimney type you prefer - a conventional masonry chimney, or a metal pre-fabricated chimney.

Like all TESS Fireplaces, the Traditional Series has been carefully designed to ensure that construction and use are trouble-free. Outside air ducted directly to the fire, and a chimney top damper help to assure superior performance.



Fireplace Replacement System

The TESS Fireplace Replacement System was created at the urging of two dedicated, professional chimney sweeps. Their business brought them into many homes where they saw an increasing number of potentially unsafe and unusable masonry fireplaces with metal firebox liners.

Chimney sweeps and fireplace inspectors have found that many of these fireplaces with steel fireboxes and smokechambers had warped or rusted-out. Damp climatic conditions are the primary cause, but improper installation and misuse can also play a part. Telltale signs of this damage include a damper that no longer works, a warped firebox, or rust holes in the metal.

Until now, the only way to restore these fireplaces has been to dismantle the face of the fireplace and to rebuild it - a process which is both difficult and expensive.

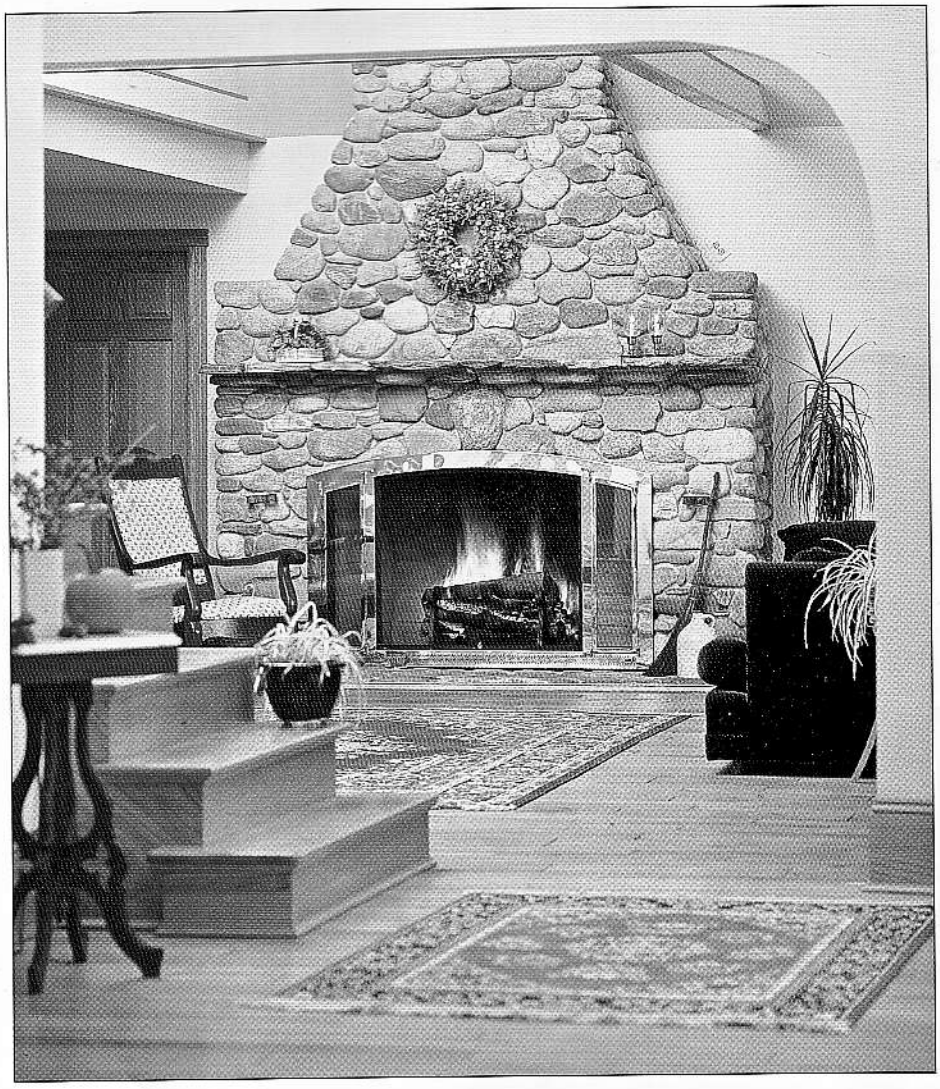
The Good News

The TESS Replacement System restores fireplaces simply and cost-effectively to safe, fully-functioning condition. It is the only product of its kind on the market today, specifically designed for renovation of the fireplace without disturbing the mantel or face of the fireplace. The existing chimney, foundation, and firebrick floor all remain intact.

Innovative Design Approach

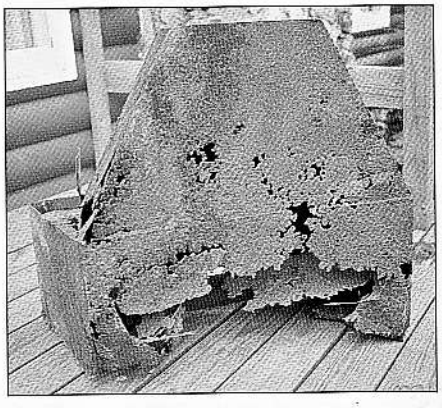
Using the same construction techniques found in TESS Fireplaces, the Replacement System features pre-engineered masonry components that interlock within the existing firebox, and a stainless steel smokechamber which makes the connection to the chimney flue.

The Replacement System may be customized to restore any masonry heat-circulating fireplace up to 60" wide. For situations where the flue as well as the fireplace needs repair, we have a Chimney Lining Adaptor, allowing the Replacement System to be connected to any of the chimney relining systems on the market today.



The TESS Replacement System is adaptable to a wide range of fireplace sizes and configurations. Installation of a customized TESS Replacement System allowed the owners of this beautiful, but unusable, 50-inch wide fireplace to enjoy the magic of a crackling fire once again.

In the hands of a trained technician, installation of the TESS Replacement System is a relatively straightforward procedure. It is not, however, a "do-it-yourself" project. Please call or write us for the name of the authorized TESS dealer or factory-trained installer in your area.



The metal lining of this heat-circulating fireplace is completely rusted out: unsafe and unusable. A TESS Replacement System will restore the fireplace to fully operable, safe condition with long life.

Planning Makes Perfect

A little advance planning will help ensure that the construction of your TESS Fireplace goes smoothly and without delay. Here are some important considerations to guide you through the planning stages.

From The Ground Up

All TESS Fireplaces require the same footings and foundation as conventional masonry fireplaces. The foundation and framing for TESS Fireplaces should meet all local building code requirements pertaining to site-built masonry fireplaces in your area. A construction guide is included with each TESS Fireplace and outlines correct construction procedures and which specific materials are required to complete the fireplace. (If you wish to obtain a copy of the construction guide to give to your architect, builder, or mason, please call or write us.)

Choosing The Correct Model

If your choice is a TESS Heat-Storing model 148 or 136, keep in mind the following:

- The fireplace should be located inside the insulated envelope of the house. The floor plan should ideally be open, to allow for circulation of heat into adjacent rooms.
- In making a choice between the TESS 148 or 136, consider room size for both heating comfort and visual appearance of the fireplace opening size.
- For a room with a standard 8 ft. ceiling choose a fireplace with 5 heat-exchanger courses. If the ceiling is higher than 8 feet, you may increase to 7 heat-exchanger courses to take advantage of additional storage capability.

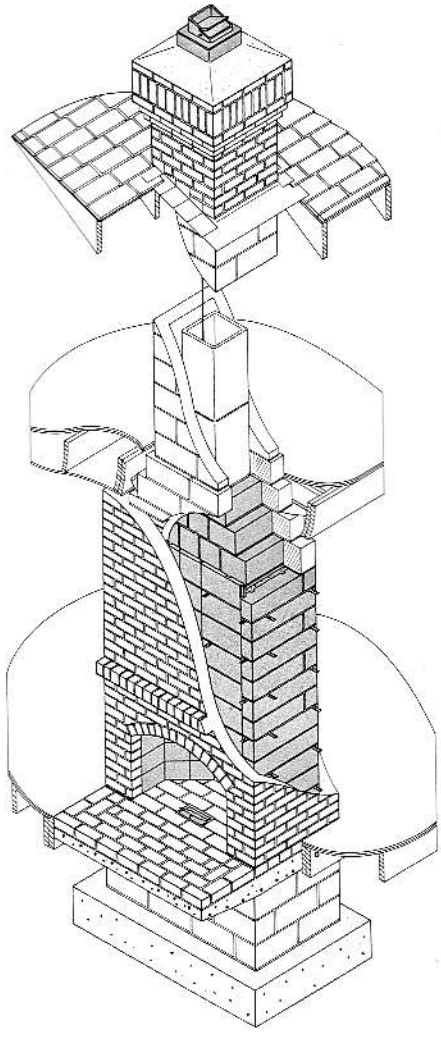
If your choice is a TESS T48, T36 or Traditional Series the guidelines are not as critical:

- Each of these fireplaces can be constructed either inside the house, or along an outside wall.
- Take into account the size of the room when comparing the difference in visual appearance represented by the 48"-wide firebox of the T48 and the 36"-wide firebox of the T36 and Traditional Series Fireplaces.
- Remember that the T48 and T36 both feature a modified-Rumford firebox, while the Traditional Series has a more traditionally shaped firebox.

Construction Accessories

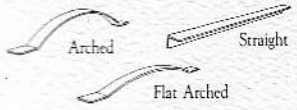
There are specific building materials and construction accessories which you will need to complete the construction of your TESS Fireplace. While some materials are available locally from your masonry supply yard, other TESS accessories have been specifically designed to enhance the performance of our fireplaces. To avoid construction delays and additional freight costs, be sure to include these items when you order the fireplace.

- **Pre-mixed Refractory Mortar:** Required for the firechamber and transition section of all TESS Fireplaces. Refer to the specification chart for quantity required.
- **Outside Air Kit:** The outside air/ash dump combination is required for all TESS Fireplaces, and should be installed when the supporting pad for the fireplace is being constructed. It features a cast iron frame and door, and an internal damper control.
- **Chimney Top Damper:** Required for the TESS 148 and 136 Heat-Storing Fireplaces and the Traditional Series Fireplace. Strongly recommended for the TESS T48 and T36. Available for both masonry and pre-fabricated metal chimneys.
- **Metal Throat Damper:** For use with the TESS T48 and T36 only in installations where a chimney top damper is impractical.
- **25-degree Offset:** Simplifies the task of corbelling the chimney. Offsets 4½" for each 7¾" of rise. Offsets to left or right only for the TESS 148 and T48, and offsets to the back or to either side for the TESS 136, T36 or Traditional Series.
- **Fireplace Doors:** Available either arched or rectangular, in Black, Polished Brass or Antique Brass. The door frames are constructed of a heavy gauge welded steel that will not twist or bend. All TESS Fireplace Doors include an inner set of high quality screen doors which swing out for easy access to the fire.



- **Arched and Rectangular Lintel Bars:** Lintel bars are designed to support the masonry used for the facing of the fireplace. Manufactured to the same specifications as TESS doors, they will help guarantee proper sizing of the fireplace opening. Important note: TESS Fireplace Doors and lintel bar should be on-site before the facing material is added to assure correct fit.
- **Fireplace Grate:** TESS Fireplace Grates are constructed of heavy-duty cast iron which will not warp. Fireplace grates ensure better air flow to the fire, protect glass doors, and offer protection from logs rolling out of the fire.

TESS Fireplace Specifications

	HEAT-STORING MODELS				RADIANT MODELS			REPLACEMENT SYSTEM
	148-5	148-7	136-5	136-7	T48	T36	36TS	
Fireplace Opening Width	48"	48"	36"	36"	48"	36"	36"	28"-60"
Log Length	24"-30"	24"-30"	18"-24"	18"-24"	24"-30"	18"-24"	18"-24"	N/A
Shipping Weight	6500	7600	4100	5000	2800	1638	802	600
Flue Size & Type	Masonry 13"x18" or 14" I.D. insulated prefab chimney		Masonry 13"x13" or 10" I.D. insulated prefab chimney		Masonry 13"x18" or 14" I.D. insulated prefab chimney	Masonry 13"x13" or 10" I.D. insulated prefab chimney	Masonry 13"x13" or 10" I.D. insulated prefab chimney	8"x12" to 13"x18"
Chimney Height minimum (measured from hearth to top of flue)	18'8"	21'4"	17'6"	20'	14'	14'	14'	N/A
Number of Heat Exchanger Courses	5	7	5	7	N/A	N/A	N/A	N/A
Recommended **Minimum** Ceiling Height	7'8"	8'11"	7'3"	8'6"	8'	8'	8'	N/A
Recommended Installation	All heat-storing models should be installed within the insulated envelope of the house or within an insulated chase.				Radiant models may be installed either inside the insulated envelope of the house or along an outside wall.			To replace steel fireboxes & smokechambers of masonry fireplaces (fireplaces must be structurally sound & built according to code).
Wall Thickness of Masonry Casing Required	4" solid masonry on sides, back and front of fireplace; 6" around transition section.				4" solid masonry on sides, back and front of fireplace; 6" around transition section.		4" sides and front; 6" at back and around transition section.	8" total wall thickness (including the TESS Replacement System) is required.
RECOMMENDED TESS ACCESSORIES								
25° TESS Masonry Offsets[1] (4½" for each 7¾" of rise)	#1TOFF48 to right or left		#1TOFF36 to right, left or rear		#1TOFF48 to right or left	#1TOFF36 to right, left or rear		N/A
TESS Refractory Cement Required (50 lb. pail - #4M50; 15 lb. pail - #4M15)	130 lbs.	130 lbs.	80 lbs.	80 lbs.	130 lbs.	80 lbs.	50 lbs.	30 lbs.
Lintel Bars (to support facing materials over fireplace opening) 	Arched #6AL48 or Straight #6FL48		Arched #6AL36 or Straight #6FL36		Arched #6AL48 or Straight #6FL48	Arched #6AL36 or Straight #6FL36	Arched #6AL36 or Straight #6FL36 or Flat Arched #6AL36-TS[2]	N/A
Log Grate	4 section #6FG48		3 section #6FG36		4 section #6FG48	3 section #6FG36	3 section #6FG36	3 section #6FG36
Outside Air/Ash Dump	#50SAK							N/A
Damper Type & Model	Top Dampers are required.				Top Damper;	Top Damper;	Top Damper;	Top Damper;
	13"x18", #3D48; or 14" prefab chimney damper #3D48M		13"x13", #3D36; or 10" prefab chimney damper #3D36M		13"x18", #3D48; 14" prefab chimney #3D48M; **or** Throat damper #3D48CI	13"x13", #3D36; 10" prefab chimney #3D36M; **or** Throat damper #3D36CI	13"x13", #3D36 or 10" prefab chimney damper #3D36M	9"x13" #3D36R 13"x13" #3D36 13"x18" #3D48
GLASS DOORS[2] (Cabinet type w/inner mesh screen doors)	Glass doors are recommended for optimum performance of heat-storing models.				Optional in these models.			N/A
Arched w/black frame	2AB48		2AB36		2AB36			
Arched w/antique brass frame	2AAB48		2AAB36		2AAB36			
Arched w/polished brass frame	2APB48		2APB36		2APB36			
Rectangular w/black frame	2RB48		2RB36		2RB36			
Rectangular w/antique brass frame	2RAB48		2RAB36		2RAB36			
Rectangular w/polished brass frame	2RPB48		2RPB36		2RPB36			
Performance Indicator	6 PI				N/A	N/A	N/A	N/A

[1]Not required for all installations.

[2]Brass doors have a solid brass veneer over a steel inner frame. The frame directly around the glass is black painted steel. TESS Glass Doors are designed to be used with TESS Lintel Bars (no glass doors are available for flat arched lintel #6AL36-TS for 36TS Fireplace). Other glass door styles and types are available. Call your Authorized TESS Dealer or the TESS Vermont office at (802) 728-4485 for additional information.

We Pledge Our Commitment

In 1980, Jay Pitha had an idea: apply European-style masonry heating systems to *fireplaces*, giving homeowners the pleasures of a crackling fire as well as the usable heat.

In the past the standard method of building a masonry fireplace has been one brick at a time. This laborious process produced fireplaces that, though beautiful when in use, wasted more heat than they contributed. So, in 1982, Jay Pitha founded TESS in order to provide consumers with high quality and efficient masonry fireplaces. In addition to the development of heat-storing refractory material, we were able to manufacture modular masonry components which simplified and reduced fireplace construction time.

The first TESS Heat-Storing Fireplace, introduced in 1982, was heralded as revolutionary in both design and efficiency. Since then, the growth of the product line has been guided by our commitment to developing innovative and useful masonry products.

Visit Your TESS Dealer

We are committed to customer service and product support through our network of qualified dealers. Your TESS Dealer will help you select the fireplace system which will work best in your home and will often be able to refer you to a qualified contractor who can build your TESS Fireplace. Call us in our Randolph, Vermont Sales Office for referral to your nearest dealer, or visit our showroom in Kenvil, New Jersey.

If you are not located within convenient distance of a dealer, our professional staff will be glad to assist you in choosing the right fireplace for your home and arrange shipment of your TESS Fireplace directly to a location of your choice. Whichever way you purchase your TESS Fireplace, you can count on a trained staff person to assist you along the way.

Let us bring the light and warmth of a TESS Fireplace into your life.

Sincerely,

Charlie Page
President

Need Additional Information?

Talk to our Fireplace Specialists during the planning stages of your new home or remodeling project. A comprehensive step-by-step Construction Guide is shipped with each fireplace and may also be obtained from your dealer or by calling us.

TESS
Innovations In Masonry

Thermal Energy Storage Systems, Inc. R.R.1 Box 3, Randolph, Vermont 05060

(802) 728-4485

Printed in U.S.A.

TESS
Innovations In Masonry

Thermal Energy Storage Systems, Inc.
RR 1, Box 3, Beanville Rd.
Randolph, Vermont 05060
(802) 728-4485
FAX (802) 728-9582

Dear Homeowner -

There is magic in a lively fire on the hearth!

We feel a sense of well-being while basking in the penetrating warmth of the fire; it provides us with an opportunity for quiet contemplation. And there is an indescribable magnetism that draws us to the fire for comfort and socializing. TESS recognizes the timeless need for fireplaces in a home setting. We are also aware of the practical concerns that homeowners have regarding efficiency, safety and value:

- the economics of investing in features which add value to a home
- the desire to build a structure that is both permanent and durable
- the requirement for clean-burning, environmentally sound products
- a need for efficient heating systems

TESS had applied modern technology to the design and construction of masonry fireplaces -- a technology that addresses all these needs in a unique and innovative way.

A Revolutionary Idea for Fireplace Construction

Instead of building a fireplace piece-by-piece with hundreds of bricks (or stone) like old-fashioned fireplaces, TESS has designed pre-engineered modular masonry components that fit together quickly and easily. This cuts down on construction time and difficulty. All of the complex firechamber angles which normally would have to be handcrafted by a skilled mason have been built into the design, assuring you of a finished fireplace that performs consistently well.

As a permanent all-masonry structure, a TESS Fireplace adds to the value and quality of your home. And your TESS Fireplace can be faced with a wide variety of masonry materials to complement your home design.

A Major Breakthrough - TESS Efficient Heat-Storing Fireplaces

TESS has developed a new generation of efficient fireplaces by applying the principles used in European masonry heating systems to a fireplace. The **Heat-Storing** models contribute significantly to your home's heating needs by incorporating a dense masonry mass above the firechamber to absorb and radiate heat that would normally be lost up the flue.

A Fireplace for Every Need

TESS Radiant Fireplaces are ideal where ambiance rather than home heating is desired. They are available with either the modified Rumford firechamber design of the **Heat-Storing** models or the **Traditional Series** 3-sided design to reflect heat directly into the room.

The **TESS Replacement System** was designed with the assistance of chimney sweeps to renovate masonry fireplaces with deteriorated metal firebox liners. These rusted or warped fireboxes can pose safety hazards and make a fireplace unusable. Our unique **Replacement System** renovates the fireplace without disturbing either the existing chimney or mantel and facing of the fireplace.

Each **TESS Fireplace** is completely described and illustrated in the enclosed information package. Our staff, or the Authorized TESS Dealer indicated below, will answer any questions you may have about our fireplaces. We can arrange shipments directly from our manufacturing facility to your building site to coincide with the building contractor's or installer's schedule. We can also help you, your architect or builder/designer with technical design information during the planning stages of your home project.

You may like to read more about us in the following publications:

HOME Magazine	January 1987, November 1988
COUNTRY JOURNAL	January 1988
HOME MECHANIX	November 1987, January 1988, October 1988
WOODHEAT ANNUAL	1988
POPULAR SCIENCE	November 1987
NEW SHELTER	October 1988
FINE HOMEBUILDING	Spring 1983

and in **The Book of Masonry Stoves** by David Lyle.

The TESS Dealer nearest you is indicated below. If there is not a dealer near you, we will be happy to assist with your planning and ordering from our office in Randolph, Vermont. Outside of Dealer areas, call our HOTLINE for technical assistance at 800-323-TESS, in Vermont call 802-728-4485.

Thank you for your interest in TESS Fireplaces.

Your Authorized TESS Dealer:

TESS Sales Office
RR 1, Box 3, Beanville Rd.
Randolph, VT 05060

Sincerely,

Charlie Page

Charlie Page
President

Send for our complete Fireplace Construction Guides:

_____ 148 - 48" Heat-Storing Fireplace	$ 2.00
_____ 136 - 36" Heat-Storing Fireplace	$ 2.00
_____ T48 - 48" Radiant Fireplace (modified Rumford firechamber)	$ 2.00
_____ T36 - 36" Radiant Fireplace (modified Rumford firechamber)	$ 2.00
_____ TS - 36" Traditional Series Fireplace (3-sided firechamber)	$ 2.00
_____ 36R - Replacement System	$ 2.00
_____ **Book of Masonry Stoves** by David Lyle	$12.95
~~_____ Construction Planner (dimensions for all TESS Fireplaces)~~	~~$ 3.95~~

Please make checks payable to TESS, Inc.

TESS Fireplaces are listed by Warnock Hersey International, Inc. (NER-QA 219) to nationally recognized safety standards.

TESS Heat-Storing Fireplaces

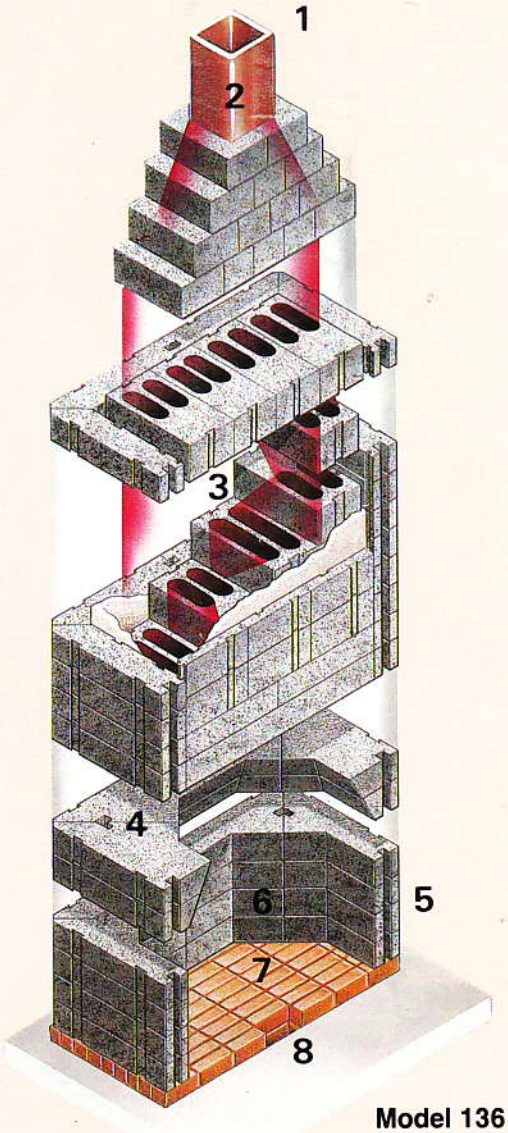
- *More efficient than regular masonry fireplaces; heat from the fire is captured and stored in the masonry mass, then radiated back into home long after fire has gone out.*
- *Pre-engineered modular masonry components for fast, easy construction.*
- *Innovative design lets you choose the finished appearance...brick, slate, tile, stone, or stucco...to match your home's decor.*
- *Solid masonry construction for safety, durability, and enhanced resale value of your home.*

Thermal Energy Storage Systems, Inc. RR1 Box 3, Beanville Rd., Randolph, VT 05060 802-728-4485

Traditional Charm. Modern Innovation.

Advanced engineering and outstanding features make a TESS Heat-Storing Fireplace the clear choice over a conventional masonry fireplace.

1. Chimney-top damper seals out weather and reduces heat loss up the flue after fire is completely out.
2. Adapts to pre-fabricated metal chimney or conventional masonry flue.
3. Dense masonry above the fire captures and stores escaping heat for later release back into the home. Available with 5 or 7 heat exchanger courses.
4. Pre-engineered modular masonry components have all the complicated firechamber angles built in, making construction fast and easy.
5. Innovative design lets you select a facing material of brick, stone, slate, tile, or stucco to match home's decor.
6. Modified-Rumford firechamber reflects immediate heat directly into the room, much as a bandshell reflects sound out to an audience.
7. Two sizes from which to choose to match room size and desired heat output: Model 148 has a 48″ wide firebox, while Model 136 has a 36″ wide firebox.
8. Outside air inlet supplies combustion air from outside the house to ensure lively fires without robbing warm room air.
9. A complete line of options: arched or rectangular glass doors available in antique brass, polished brass, or black, lintel bars, refractory mortar, log grates, chimney offsets, and outside air kits.



Model 136 and Model 148

Thermal Energy Storage Systems has long been the pioneer in fireplace innovation in the United States. In addition to the TESS Heat-Storing Fireplaces, our diverse line of quality modular masonry products includes:

- the **TESS Radiant Fireplaces** that combine economy, flexibility and ease of construction,
- the **TESS Traditional Series Fireplace,** an economical alternative to conventional masonry construction,
- the unique **TESS Fireplace Replacement System** that enables restoration of masonry fireplaces having deteriorated metal liners.

Your TESS Authorized Dealer can help you determine which modular masonry fireplace best suits your needs and provide answers to your construction questions. We also offer Builder/Architect information packages on request.

Your TESS Authorized Dealer:

#025

TESS Fireplaces for the Hearths of America.