

**T H E B R Y A N  
F U R N A C E**

**M O D E L 4 5 0 I N D U S T R I A L F U R N A C E**

**OUTSIDE SHELTER ASSEMBLY**

**16 GAUGE GALVANIZED STEEL PANELS JOINED BY FORMED ANGLE AND CHANNEL SEAMS FOR SIMPLE DISASSEMBLY.**

**SUPPLY AND RETURN AIR AUTOMATIC DAMPER ASSEMBLIES OPEN WHEN BLOWER FAN IS ACTIVATED.**

**110 VOLT ELECTRIC JUNCTION BOX LOCATED UNDER FAN COVER ON LEFT SIDE.**

**THERMOSTAT JUNCTION BOX LOCATED UNDER FAN BOX COVER ON RIGHT SIDE.**

**REMOVABLE 1/4" CORRUGATED STEEL BAFFLE PLATE MOUNTED ON STEEL ANGLE.**

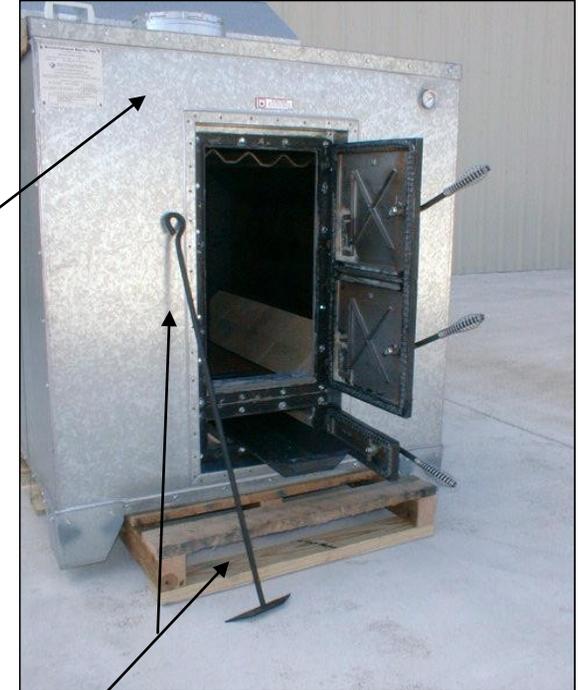
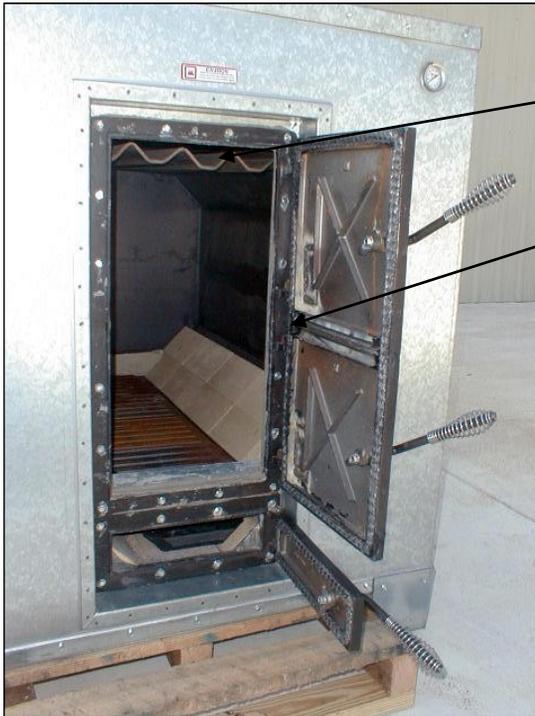
**DOORS, FRAMES, LATCHES AND GRATES ARE CAST IRON. DOORS PROVIDED WITH FIBERGLASS GASKETS.**

**ASH PAN AND POKER PROVIDED FOR EASY ASH REMOVAL.**

**SCREEN GRILLE COVERS COMBUSTION AIR FAN INTAKE.**

**MOTION DETECTING NITELITE ILLUMINATES WHEN MOTION IN FRONT OF FURNACE IS DETECTED. (OPTIONAL)**

**HINGED LID COVERS ALL COMPONENTS.**



**OVERALL FURNACE LENGTH=62 INCHES  
OVERALL FURNACE WIDTH=43 INCHES  
OVERALL FURNACE HEIGHT=67 INCHES  
OVERALL FURNACE WEIGHT=1450 LBS.**

**For more information call:**



**[www.rik-mar.com](http://www.rik-mar.com)**

**LARGE FIREBOX ACCEPTS 12 IN. DIA. BY 45 IN. LOGS. BURN TIME DEPENDS ON THE TYPE MATERIAL YOU ARE BURNING.**

## OPERATION

The Bryan Furnace Model 450 Industrial Furnace is an airtight wood burning furnace located inside a well insulated sheet metal shelter. Air is drawn out of the building into the shelter, warmed by the heat from the fire box and blown back into the building by a fan. The shelter and firebox are sealed from each other so that only the clean, warm air can enter the building.

The fan turns on automatically when there is warm air in the chamber and turns off when the fire dies down, to prevent recirculation of cold air. The fire is controlled by a thermostat located inside the building and is adjustable to control burn rate and air temperature entering the building.

## CONSTRUCTION

The combustion chamber of the Bryan Furnace Model 450 is constructed of 3/16" steel plate with cast iron and firebrick protection at all hot spots to provide a lifetime of service. All seams are continuously welded and pressure tested to assure the unit is free from air leaks. The outside shelter is constructed of 1/16" galvanized steel with 1-1/2" thick fiber board insulation. The inside shelter is constructed of 24 gauge galvanized sheet steel.

## EFFICIENCY

The Bryan Furnace Model 450 is an airtight solid fuel furnace with internal baffling for maximum burn efficiency. Since the Bryan Furnace uses outside air for combustion and does not pull heated air out of the building to go up the flue, overall efficiency is higher than an indoor solid fuel heater.

## INSTALLATION

The Model 450 can be installed through walls, into basements or ducted directly into the building through interior ductwork. It can be installed within two feet of your building. No shelter is required but can be covered if desired. Chimney should extend a minimum two feet above the overhang of your structure. Chimney pipe not included with furnace.

## SPECIAL FEATURES

The Bryan Furnace Model 450 Industrial Furnace is your answer to the task of heating your home, shop, green houses, farm houses or any other structures where clean safe heat is desired. No modification to your present building is required and the expense of installing piping, pumps, fittings, pipe insulation, hiring of plumbers and other trenching contractors is eliminated.

The Bryan Furnace Model 450 Industrial Furnace arrives ready to install next to your building allowing you to start enjoying the dry warmth that only wood heat can provide. Combustion is contained outside the building and away from any flammable materials such as paint, gasoline, cleaning materials or any other flammable materials.

Temperature is regulated by a wall mounted thermostat located where desired in the building. The supply air fans will come on automatically when the temperature inside the furnace shelter reaches 120 degrees and will continue to run until the temperature drops below 85 degrees. The shelter and firebox are sealed from each other so that only clean, warm air enters the building.

Combustion air enters the combustion chamber through a opening located in the center of the back chamber wall above the rear fire brick and provided by a combustion air fan located inside the fan enclosure. This fan is controlled by the thermostat located inside the building and may be turned off completely if desired. In the event of a power failure or over heating condition, automatic dampers located in the supply line, return line and combustion air line shut down completely and close off all oxygen to the fire.

The Bryan Furnace was tested by The Arnold Green Testing Laboratories.

The Bryan Furnace Model 450 Industrial Furnace requires no modification to your building. Combustion is contained in a fireproof unit outside the building. There can be no accidental contact with the hot furnace as is possible with an indoor wood burning unit. All that enters your space is clean warm air that is controlled by a wall mounted thermostat located inside the building at a location of your choice.

## MANUFACTURED BY:

Rik-Mar Inc. 979-779-1616  
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Bryan, Texas 77805 rik-mar@txcyber.com

# THE BRYAN FURNACE

## MODEL 450 INDUSTRIAL FURNACE

The original outdoor wood burning furnace

Since 1977



The Bryan Furnace Model 450 comes complete and ready to install. A concrete slab to support the unit to sit on is recommended due to its weight. Inside the fan enclosure are twin supply blowers, combustion air fan and all required wiring. Automatic dampers are installed inside the supply, return air and combustion air ducts. Motion detecting night-light is located on top of the furnace. Temperature thermostat is inserted through the front wall that indicates the temperature inside the enclosure. Combustion air fan only runs when the indoor t-stat calls for heat.