

INTRODUCING A TRULY EFFICIENT BOILER

In these times of high energy costs, it makes sense to use a heat source that utilizes a resource that is readily available and cost effective. The A-Maize-Ing Heat boiler burns shelled corn, a renewable local commodity. Corn costs less per BTU than other heat sources, plus benefits the local economy by generating business for farmers. The low cost of shelled corn, together with the efficient burning process of this boiler, produces an economical, ecologically safe home heating system.

BURNS CLEAN—NO MORE CREOSOTE

The A-Maize-Ing Heat boiler feeds the corn into the bottom of the combustion chamber, therefore providing the most efficient fuel consumption. The residual ashes (clinkers) are then spilled over the top of the combustion ring into the ash pan. This process, in effect, self cleans the combustion chamber.

THE FIRST UL LISTED

The A-Maize-Ing Heat boiler is the first shelled corn fired residential biomass hot water boiler to be listed by Underwriters Laboratories. Using an auger drive to meter the fuel allows for precise control of combustion. The UL listing assures you of a safe and quality product.

SAFE, COMFORTABLE HEAT

Your home's thermostat electronically controls the fuel feed system to provide a constant temperature. The boiler will remain lit as long as the bin contains corn, and will shut down automatically if the fuel supply is depleted. The low stack temperature and absence of creosote buildup eliminates the possibility of chimney fires.

A BETTER ALTERNATIVE

The corn burning boiler has many advantages over wood heat. The large storage bin holds up to 10 days supply of fuel, which is automatically fed into the combustion chamber as needed. There's no need to load the fire box several times a day. The use of corn also eliminates the bark mess, insects, splinters, and storage and handling problems connected with the use of wood fuel.

QUALITY CONSTRUCTION

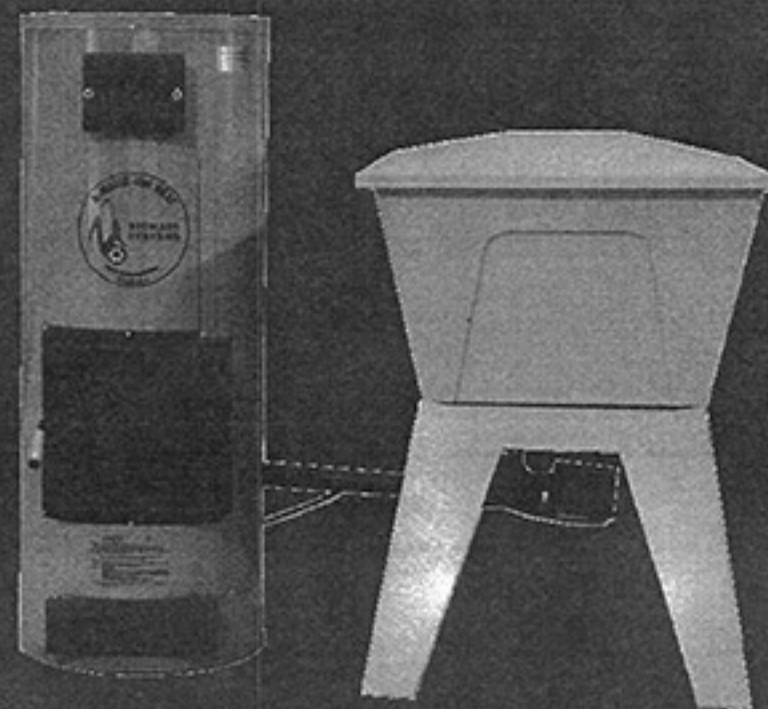
The A-Maize-Ing Heat boiler features quality construction for long-lasting performance. A one year warranty is included on parts and a five year limited warranty on the burner and heat exchanger.

PELLET MODEL

The A-Maize-Ing Heat boiler is also available in a wood pellet fueled model. The pellet model can be ordered from the factory or can be field converted.



SHELLED CORN BOILER



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456 Douglas Street
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Greg Disterhaft

(920) 420-3399
(920) 745-2199

SPECIFICATIONS Model BM991

Dimensions—Boiler	
Height	61"
Diameter	22"
Dimensions—Bin	
Height	48"
Width	36"
Depth	52"
Weight—Boiler	510 lbs.
Weight—Bin	50 lbs.
Flue Pipe	6" Diameter
Fire Pot	Cast Iron
Bin Capacity	14 Bushels
Combustion Blower	60 CFM
BTU's	175,000
Thermostat Controlled	
Clearance to Combustibles:	
	18" from flue connection
U.L Listed	
Wood Pellet Model also available.	

STORAGE BIN—Fourteen bushel capacity for up to 10-day operation on a single load.

AQUASTAT RELAY

PRESSURE RELIEF VALVE

HIGH LIMIT SWITCH

BOILER—ASME approved tube type steel boiler with a wet leg water jacket surrounding the burner chamber in water.

COMBUSTION CHAMBER—Induced air flow generates maximum efficiency. Burns 99% complete, leaving about one pound of residue from 100 pounds of corn.

BOILER TAPS (6)

ASH PAN—For easy removal of ashes.

FURNACE AUGER—Supplies fuel to fire pot.

COMBUSTION BLOWER

A COST ANALYSIS

All heat output is measured in terms of BTU's. One BTU is the amount of heat needed to raise one pound of water one degree. Available heat per unit in alternative sources of fuel:

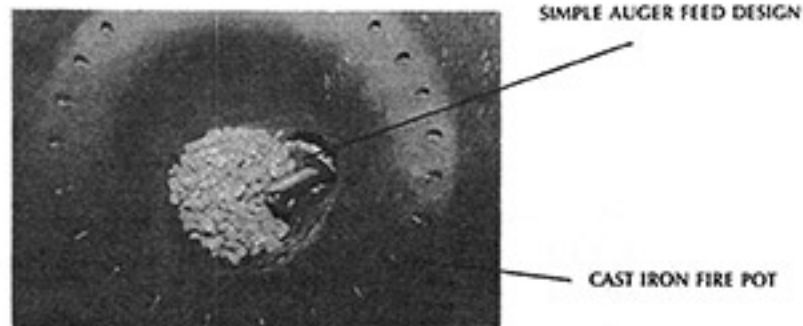
	1 BTU Value Per Unit	2 Units Required to Produce 18,000,000 BTU's	3 Current Fuel Price Per Unit	4 Total Cost To Produce 18,000,000 BTU's—Col. 2 x Col. 3
*DRY SHELLED CORN	9,000 Per Pound	2,000 pounds 56 lbs. per bushel = 36 bushels	\$2.50 per bushel	\$ 90
ELECTRICITY	3,412 per KWH	5,275 KWH	.08¢ per KWH	\$422
NATURAL GAS	1,000 per cubic ft.	18,000 cubic feet	.50¢ per 100 cu. ft.	\$ 90
FUEL OIL	140,000 per gallon	129 gallons	.85¢ per gallon	\$110
L.P. GAS	91,000 per gallon	198 gallons	.80¢ per gallon	\$158
WOOD (oak)	26,300,000	.7 cord (full)	\$115 per cord	\$ 80
COAL	13,000 per pound	1,384 pounds (.7 tons)	\$140 per ton	\$ 98

The above chart can be easily adapted to any price fluctuations by supplementing the applicable price in column 3.

Note: Shelled corn can be purchased at reduced prices (i.e. moldy corn, scorched corn, etc.).

The BTU content of shelled corn will vary between 8,000 to 10,000 BTU's per pound.

Use corn at 14-15% moisture content for peak efficiency.



VIEW OF CORN BEING
AUGERED INTO FIRE POT