TARM BIOMASS™
Innovative Leaders in Alternative Heating Solutions

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How Excel Boilers Work

Wood burning

The combustion system employed in Excel boilers has solved most of the problems associated with conventional wood boilers and water stoves.

Here's why: Wood gasification combustion begins when the whisper quiet fan is activated by the boiler control. As the fire burns, the smoke and wood gases are forced down through the coals and into the high temperature ceramic combustion chamber. Secondary air is injected into these super hot gases producing combustion temperatures of 1800°F. This combustion is nearly complete, leaving no tars or vapors to form creosote in the heat exchanger, stove pipe, or chimney. The vertical heat exchange tubes are matched to the heat produced by the high temperature combustion resulting in very high heat exchange and combustion efficiencies. Thus, overall boiler heating efficiencies of up to 80% are achieved.

Excel boilers perform extremely well on wood as stand alone boilers, cycling on and off like an oil or gas boiler to meet the heating load.

The best installation for an Excel or any other boiler, however, is to install it with a heat storage tank. This system results in even higher efficiency, easier firing, the ability to use wood 12 months a year, and longer boiler life. Most TARM owners who have storage tanks fire their boilers once on most winter days and once every 4-10 days when heating domestic hot water in the summer. Ask Tarm Biomass™ for more information on heat storage .

Oil/Gas Burning

Excel boilers have separate combustion chambers and heat exchange tubes for each fuel. This assures maximum efficiencies. In fact, the oil and gas test results on these boilers (up to 86% steady-state efficiency) meet or exceed most single fuel non-condensing oil and gas models.

Multifuel Operation

During multifuel operation, the boiler will automatically switch from wood to oil or gas if the wood fire burns out. This means never having to wake up to, or come home to a cold house, even if the fire is out.

HS TARM

Excel

High Efficiency Multi-Fuel

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Listed Appliance

High Efficiency Multi-Fuel Boiler

Standard Equipment

- Boiler body, doors and jacket
- Oil or gas burner option
- Fan, controls and wiring harness
- ASME boiler pressure relief valve
- Cleaning tools

Optional Equipment

- Enhanced ash hod
- Domestic water coil
- Thermostatic tempering valve
- Heat storage system
- Contact Tarm Biomass™ for a full list of accessories

Warranty

Each Excel boiler is covered by a 20-year limited warranty. A copy is available for your inspection, and is provided with each boiler.

Disclaimer

Tarm Biomass™ is not responsible for factory alterations to measurements. For final specifications, and operational requirements please see the Excel Owner's Manual.

HS-TARM Excel Multifuel Wood Gasification/Oil/Gas Boiler

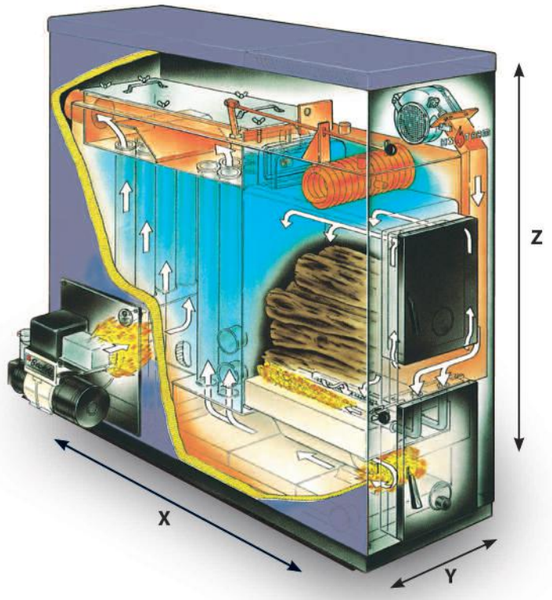
HS-TARM Excel boilers provide a convenient, safe and environmentally friendly way to heat your home and domestic hot water with wood, oil or gas. Fully automatic controls will accurately maintain your wood fire and automatically switch to your oil or gas backup when the wood fire dies down. You have flexibility to burn the fuel of your choice.

The wood gasification technology utilized in these boilers produces unusually high overall boiler heating efficiency. Excel boilers use substantially less wood than conventional wood boilers and outdoor water stoves. They burn so clean that they are safer (virtually no smoke, creosote, or risk of chimney fire) and result in cleaner air for everyone.

A commitment to quality is evident in the construction and finish of all HS-TARM boilers, Excel boilers have been tested to ANSI and UL safety standards. The doors are heavy cast iron. The boiler jacket is heavily insulated and is finished in an attractive powder coat paint.

Technical Data		Excel 2000	Excel 2200
Output **wood**	BTU/hr	102,500	140,000
Output **oil**	BTU/hr	120,000	150,000
Output **gas**	BTU/hr	120,000	140,000
Firebox volume	cubic feet	4.0	6.6
Max. wood length	inches	20	20
Water volume	US gal	64	72
Pressure test, boiler	PSI	45	45
Pressure test, coil	PSI	580	580
Unit length X	inches	54	54
Unit width Y	inches	21	25
Unit height Z	inches	52	54
Unit weight	lbs	1440	1610
Flue collar size	inches	6	6
Height of flue collar	inches	41¼	41¼
Tapping size–feed & return	inches	1¼	1¼

Dimensions are subject to technical alterations. Pressure tested in accordance with EN 303-5, non-ASME.



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