TARM 400 SERIES

Central Heat from Wood or Coal

HS TARM brings wood and coal heat into the twentieth century with the TARM 400 Series boilers.

Wood and coal are cheap fuels. But wood or coal stoves don't heat your house evenly. Or conveniently.

Your present central heating system heats your house evenly, leaves no ashes or bark on the living room rug, and lets you come and go as you please. But how much longer can you afford the fuel it burns? And how much longer will that fuel be available—at any price?

Now HS TARM gives you the best of both worlds. TARM 400 add-on systems provide the economy and security of wood or coal plus the freedom, comfort and convenience of central heat.

Connected to your present hot water boiler and fired with wood or coal, your TARM 400 will heat your whole house and all the tap water you need. When you're away or if you forget to add fuel to the fire, your present boiler will take over automatically to keep your house warm.

Sixty years of design and production know-how go into every TARM 400 boiler. They're built to last. And built so they're easy for you to operate and maintain. With features like a large firebox with no obstructions to get in your way. Durable cast-iron doors and grates. A heavily insulated jacket, finished in a brilliant orange-red enamel.

There's also an optional tankless coil for heating tap water. And if you live in an area where electricity is inexpensive or little back-up heat is required, you can turn your TARM 400 into a completely independent multi-fuel system with the optional electrical elements package.

These features—in a boiler made by the best-known, most respected company in the business—make the TARM 400 your only choice if you insist on quality and long-term economy.

combustion

TARM 400 Series boilers operate as cross-draft burners when fired on wood and as updraft burners when fired on coal—ensuring the most complete combustion of either fuel.

Cross-draft systems give the most efficient wood combustion possible with a natural draft chimney. In the TARM 400 Series boilers, primary air enters the area below the grates through a flap on the ash door. This primary air flow is controlled precisely by the SAMSON draft regulator, a non-electric device that regulates boiler temperature automatically, even during power failures. As the fire burns, smoke and hot gas pass through the hot coals on the grates to the rear of the firebox. Secondary air, admitted through the air dial on the firing door and through a tube in the rear of the firebox, mixes with these hot gases, encouraging further burning and minimizing creosote formation.

TARM 400 Series boilers are converted easily to updraft operation by the addition of a vertical cast-iron baffle in the firebox. The baffle forces all primary air to pass up through the coal bed. Secondary air passing over the bed burns the carbon monoxide produced by the coal fire. Hot gases

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then pass down behind the baffle and up through the heat exchanger at the rear of the firebox.

Efficient burning is but the first step to an efficient boiler. Heat must be removed from the flue gases before the gases leave the boiler. In the TARM 400 Series, the vertical firetube heat exchanger extracts the maximum amount of heat from these gases before they are vented up the chimney. Less heat up the chimney means more heat in your house—where you want it.

construction

For durability, all TARM 400 Series boilers are constructed of ¼" steel plate. The doors and grates are cast and machined from the finest gray iron.

For maximum flexibility of installation, the flue outlet may be mounted either on the right side of the boiler or at the rear.

For ease of maintenance, the firetube heat exchanger, accessible when the cleanout cover is removed, may be cleaned quickly and easily with the round flue brush supplied with the boiler.

The optional tankless copper coil is ⅞" in diameter—larger than average to ensure good heat output even at lower boiler temperatures.

Note: TARM 400 Series boilers are available constructed in accordance with the ASME Boiler and Pressure Vessel Code and National Board-registered.

controls and accessories

Each TARM 400 Series boiler is shipped with the following:

- cast-iron doors and shaker grates
- SAMSON Automatic Draft Regulator
- High Limit Aquastat (overheat control)
- ASME Boiler Pressure Relief Valve
- cleaning tools

The following accessories may be ordered with the boiler or ordered separately for installation at a later date:

- cast-iron baffle plate for burning anthracite coal
- copper tankless coil and ASME Coil Pressure Relief Valve for heating domestic water
- electrical elements package for converting the TARM 400 boiler to an independent multi-fuel system

5-year warranty

All HS TARM boilers carry a limited five-year warranty, a copy of which is provided with the boiler and is available from your dealer.

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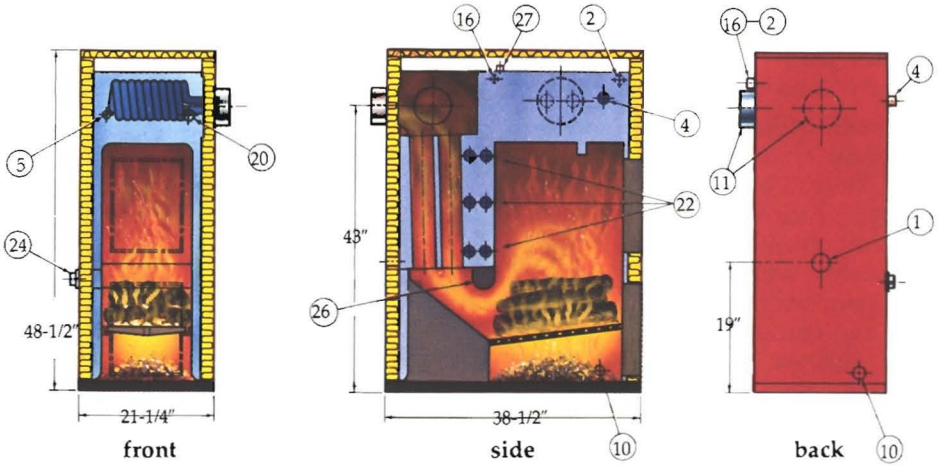
specifications

		TARM 402	TARM 404
Maximum Gross Output-Wood	Btu/hr	110,000	150,000
Burn Time	hr	5	6
Minimum Gross Output-Wood	Btu/hr	25,000	37,000
Burn Time	hr	14	16
Maximum Gross Output-Coal*	Btu/hr	120,000	168,000
Burn Time	hr	12	12
Minimum Gross Output-Coal*	Btu/hr	30,000	42,000
Burn Time	hr	24+	24+
Maximum Output with 6 Electrical Elements	Btu/hr KW	102,000 30	102,000 30
Boiler Body			
Width	in	21¼	24¼
Depth	in	38½	49¼
Height	in	48½	48¼
Firebox			
Length	in	18¾	27½
Width	in	13¼	16¼
Height	in	27½	27½
Volume	cu ft	4	7
Height to Center of Flue	in	43	43
Tapping(s) for:			
1 Return	in	1½	1½
2 Supply	in	1½	1½
3 Fusible Plug	in	¾	¾
4 Aquastats	in	¾	¾
5 Tridicator	in	½	½
10 Drain & Fill	in	1	1½
11 Flue Outlet	in	6	8
14 Tankless Coil	in	¾	¾
15 Tankless Coil	in	¾	¾
16 Pressure Relief Valve	in	¾	¾
20 Draft Regulator	in	¾	¾
22 Electrical Elements	in	1	1
24 Preheated Secondary Air Control		–	–
26 Preheated Secondary Air Manifold		–	–
27 Air Vent	in	¾	¾
Water Volume	gal	41	62
Weight of Boiler Body	lbs	968	1,430
Weight of Jacket	lbs	88	99
Pressure Test	psi	60	60
Minimum Flue Size	in	8 x 8	8 x 12
Minimum Chimney Height	ft	20	20
Minimum Draft Required	in/WG	.05	.05

*** with optional coal baffle installed**



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