



MONITOR™

Gas Fired Condensing Heating Systems



MZ40C/MZ25S



MZ25C

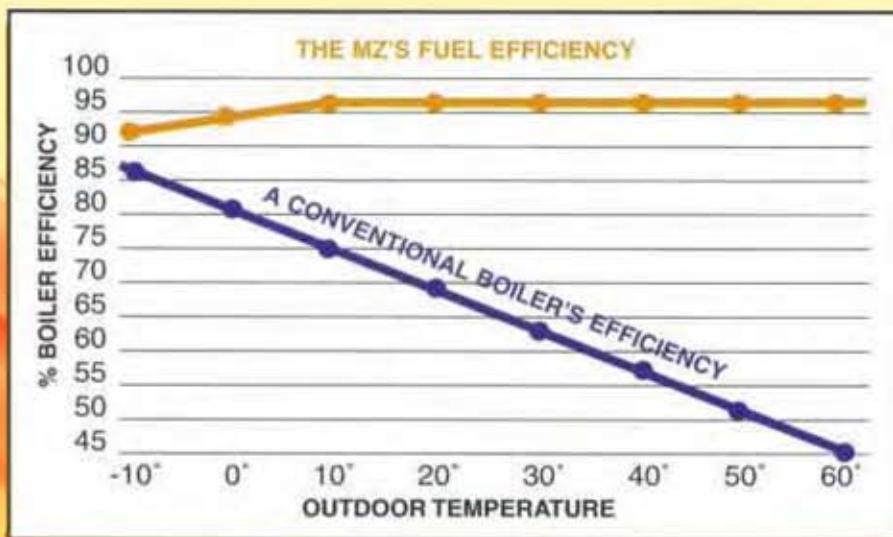
Using Technology To Save You Money!



MONITOR™

Monitor can Reduce Heating Costs by at Least 30%

AFUE (Annual Fuel Utilization Efficiency) is similar to a car's mileage per gallon rating. Heating appliances are AFUE rated for efficiency only at full operating temperature, and at high return water (non-condensing) temperatures. A typical cast iron heating boiler starts at a very low efficiency and



slowly works its way to 80% as the massive cast iron heat exchanger absorbs heat from the burner. This can take 20 minutes. On moderate heating days, the typically boiler has to fully heat its exchanger before it can begin heating the home. If the home only needs a little heat, the boiler shuts down while the heat exchanger cools and the leftover heat goes up the chimney. Next time the home needs heat, the boiler has to re-fire and heat up all over again. On a 30 degree day, that boiler is about 62% efficient. What is the average heating season temperature in your area? Because of its low

mass, the MZ reaches full temperature in less than 90 seconds and automatically transfers any residual heat to the home after it has turned off! While running, its condensing heat exchanger maintains peak efficiency until the home is heated. Those two factors result in 30% to 70% less fuel use with a Monitor!

Beyond Environmentally friendly

Many products today have been improved to reduce their impact on our environment. Monitor has taken it to a new level. They are the only proven boilers in North America to meet the strictest pollution limit in the world – Germany's Blue Angel standard. In fact, it takes 10 MZs to make as much CO and NOx as 1 conventional boiler! The electrical consumption is also minimal.

The Benefit of Condensing

Water vapor is only one of the byproducts of combustion. Pollutants are suspended in the vapor as well, only to be released when they condense in the outside air (a source of acid rain). Monitor's heat exchangers are made from stainless steel so condensing will not harm them. In fact, they're designed to condense as much as possible for one single reason – there's free heat in there! Now the boiler only has to run hot enough to heat the home, and the boiler can be sized precisely to the heating needs of the structure.

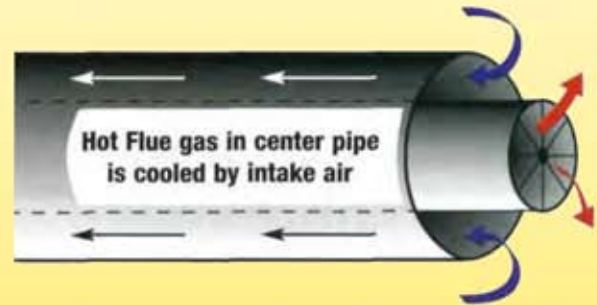


The Word's Finest Condensing Heat Source... ...For This Century!

Sealed Combustion/Direct Vent with a Concentric Flue

This feature is one of the most often overlooked for both savings and comfort. Most boilers and furnaces draw combustion air from the room and vent exhaust outside. The air used has to be made up, so it comes in through any places it can – leaky windows, doors, and fireplaces. It's like leaving a window open 3 inches all winter. Have you ever felt a draft when your boiler or furnace is running? This might be why?

The Monitor MZ draws air from the outside, uses it for combustion, and return it where it came from – outside! No drafts! Its concentric design also uses the outgoing exhaust to pre-warm the incoming air, transferring the heat. Safety is another factor. Since exhaust is surrounded by the intake pipe and the



entire burner is sealed from the room, CO leakage is virtually impossible! In fact, the MZ has a "constant purge" safety feature that vents any fumes or gas if the flame goes out during the burn cycle, preventing any build up in the home. The outer air intake also acts as an insulator from the exhaust pipe, keeping all parts of the unit cool to the touch. Since the MZ does not require any chimney, the homeowner can save quite a bit, especially if the chimney is in bad condition or non-existent as in the case of electric heat conversion. The installer only has to drill a 4 1/2" hole for the flue pipe.

Domestic Hot Water Performance

Did you know that a standard gas fired hot water heater is only about 50% efficient due to off cycle losses through the vent? Electric models don't lose nearly as much but cost about 4 times as much to operate. A monitor can make hot water at 95% efficiency by using our indirect water heater. Instead of a flame or electric element, an internal heat exchanger with hot boiler water flowing through it heats the domestic water – in a hurry! Most 40 gallon tanks will take about 45 minutes to heat water from 50 to 120 degrees. A Monitor can do it in 15 minutes or less, depending on the model. Our full line of BS Indirect Tanks give the performance of standard heaters twice their size!

Wall Mounted/Space Savings

The location of the MZ is determined by you, not the product. Due to heat, noise or safety, most boilers need their own room or separate area. The MZ has no limitations on location. Above the washer/dryer, in the bathroom, mud room, attic, pantry or closet – this unit puts you in control of your living space.

Other Application

The versatile MZ can also handle pool/spa heating, snow melt, and forced air heating with ease and ultra high efficiency. In fact, many people have combined the chores of the MZ for greater service – pool/spa heater in the summer; driveway and sidewalk de-icer in the winter. Contact us for details and plans.



Each MZ comes with the following built-in components as standard: Circulation pump, expansion tank (except on the 40C), flow sensing low cut-off, microbubble air eliminator, relief valve, condensate trap and drain, on/off switch, temperature/pressure gauge, summer/winter switch, fill & drain valve, stainless steel return water strainer, manual flow bypass, mounting bracket, and piping kit.

Also available for easy installation:

Choice of 3 vent kit options, horizontal concentric, vertical concentric or parallel PVC, DHW kit for easy indirect-tank hookup. Modulating outdoor reset kit.

Specifications:

		MZ25C	MZ40C	MZ25S
Fuel		Factory tuned for natural gas, but propane kit is included		
Vent Length		Vent runs longer than 13.5 ft. derate input by 1% per 30 ft.		
Built-in controls & Function		Priority pumped hi-temp circuit (for DHW tank or heat)		Integrated DHW tank w/ separate aquastat
Input Rating (Btu/h)		94,500	71,000/142,000	94,500
Annual Fuel Utilization Efficiency (AFUE)		92% to 97% (depending on return water temperature)		
Dimensions	Height	30"	30"	30"
	Width	22"	30"	30"
	Depth	13"	13"	13"
Weight		125 lbs.	160 lbs.	160 lbs.

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