Instantaneous
indirect water heater

turbomax

PERFORMANCE AND PEACE OF MIND

- Heat transfer efficiency of 99%
- Instantaneous domestic hot water
- More than 30-year lifespan
- Unmatched energy transfer capabilities
- Minimizes energy consumption
- Compatible with all sources of thermal energy
- No maintenance – 15-year residential warranty and 10-year commercial warranty

THERMO 2000

Peak-performance heating systems

No compromises

MAXIMUM DURABILITY

Contrary to traditional hot water tanks and water heaters, TurboMax uses the principle of instantaneous indirect domestic water heating. No stagnant water. No water accumulation in the tank that cause scale buildup or corrosion over time. No maintenance. The copper coils, which feature a high thermal exchange capacity, heat the water instantaneously and upon demand—all while avoiding the risk of the proliferation of harmful bacteria, such as *Legionella.*

MAXIMUM PERFORMANCE

Copper's thermal conductivity is 17 times greater than that of stainless steel. TurboMax's copper heat exchanger exploits the full potential of this conductivity. In addition, the large number of copper tubes inside the tank provides an increased exchange surface, which maximizes the system's heat exchange capacity.

Ingenious!

The TurboMax indirect water heater works on the principle of using heat transfer liquid to indirectly heat potable water at the precise time when it is needed. **In addition, there is no stored stagnant water.**

1 POTABLE WATER

When domestic hot water is required, potable water circulates from the bottom of the water heater to the top inside of copper coils that are submerged in a heat-transfer-liquid reservoir. While it is circulating upwards, the potable water captures the thermal energy transmitted through the copper coils. This ensures that the potable water never comes into contact with the heat transfer liquid.

2 HEAT TRANSFER LIQUID

The heat transfer liquid enters the top of the tank through an **injector**, which creates turbulence around the coils and increases the effect of convection. As it descends into the tank, thermal energy is transferred from the heat transfer liquid to the copper coils inside the indirect water heater.

3 COUNTERFLOW

Liquid counterflow increases the efficiency of heat transfer and minimizes fluctuations in temperature.

4 HEAT SOURCE

When it reaches the bottom of the tank, a second injector recovers the heat transfer liquid and transports it to the energy source to be re-heated until the demand for domestic hot water is satisfied.

From 40 °F to 140 °F in less than 7 seconds

Incredibly efficient! The patented TurboMax system can increase the water temperature by 100 °F in less than 7 seconds. A thermostatic mixing valve is recommended to calibrate the final operational temperature of your hot water system.

Domestic hot water and heating application
Use of additional connections offered in option is shown.

With its additional connections, the TurboMax indirect water heater optimizes the boiler's performance by serving as a buffer tank and hydraulic separator in addition to producing domestic water.

Standard features

1. Heating supply
2. Heating return
3. Domestic cold water
4. Domestic hot water
5. Pressure relief valve
6. Temperature and pressure indicator
7. Drain valve
8. Immersion well
9. Automatic air vent
10. Adjustable legs
11. Additional connections (optional)
12. 2" insulation
13. Aquastat with adjustable temperature differential

Domestic hot water and heating application
TurboMax without the option of additional connections.

Extraordinary advantages

MORE THAN 30 YEARS

When the TurboMax instantaneous indirect water heater is properly installed, its lifespan is more than 30 years. Incredibly durable, the TurboMax is also covered by a **15-year residential warranty** and a **10-year commercial warranty**, both of which are some of the best in the industry.

NO CORROSION. NO MAINTENANCE.

Unlike traditional tanks and water heaters, **the TurboMax uses copper coils to circulate the potable water** instead of having it accumulate in the tank. Copper is a proven material that naturally resists corrosion and thermal stress.

In addition, the closed-circuit heat transfer liquid principle helps to quickly purge the system of any corrosion-causing dissolved oxygen. There is no sacrificial anode. **No replacement** is required. **No inspection** of the inner lining is required. The system requires minimal maintenance.

UNPARALLELED ENERGY-TRANSFER CAPACITY

Using a large amount of copper helps maximize the exchange surface, thus resulting in maximum energy transfer capacity. This enables a large quantity of domestic hot water to be produced without requiring large storage tanks in commercial applications. Reducing the volume of stored water minimizes heat loss when the system is on standby and generates **substantial energy savings and space savings of up to 75%**.

ENERGY COSTS REDUCED BY UP TO 30%

Unlike traditional hot water heaters, the TurboMax instantaneous indirect water heater maintains its effectiveness over time by **preventing scale to accumulate** in the exchanger. This reduction of scale from the exchanger's walls is made possible by the water turbulence and the expansion-contraction of the copper pipes—two phenomenon TurboMax leverages.

Potable water circulates through the copper coils in a state of turbulence, which improves convection exchange while generating friction on the walls, thus preventing scale accumulation. In addition, fluctuating water temperatures make the copper coil expand and contract, reducing scale build-up on the copper. The combined effect of reducing the volume of stored water and maintaining optimal efficiency helps reduce energy costs by up to 30% in some cases.

EXCEPTIONAL-QUALITY INSTANTANEOUS DOMESTIC HOT WATER

Unlike traditional hot-water heaters, the TurboMax instantaneously produces domestic hot water. It provides superior-quality potable hot water while preventing the proliferation of bacteria, such as *Legionella*.

NO RESIDUE

Over time, a traditional hot water heater generates residues that accumulate in the bottom of the tank. The residues are in direct contact with the stagnant domestic hot water and affect its quality. They form an unwanted insulator that prevents the heat from destroying bacteria, such as *Legionella*.

COMPATIBLE WITH ALL SOURCES OF THERMAL ENERGY

The instantaneous indirect water heater meets your needs as it is compatible with all sources of thermal energy, such as gas, oil, electricity, wood and solar energy.

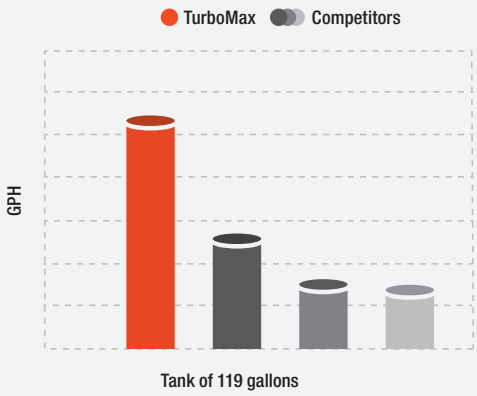
THERMO 2000: 40 YEARS OF PERFORMANCE AND INNOVATION

The TurboMax water heater is the result of more than 40 years of recognized expertise in both residential and commercial sectors. We have earned a solid reputation after installing thousands of systems throughout North America, which is your guarantee of quality and total peace of mind.

THE MOST HIGH-PERFORMANCE WATER HEATER IN ITS CATEGORY

TurboMax produces 2 times more hot water per hour than its closest competitor with the same volume.

Estimate based on: Boiler water supply at 180 ˚F and boiler water return at 160 ˚F; domestic cold water inlet at 40 ˚F and domestic hot water outlet at 140 ˚F.



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PERFORMANCES

Domestic hot water production per hour in US gallons[1]

MODEL	110 °F - DHW[2]				140 °F - DHW[2]				160 °F - DHW[2]			
	Maximum exchange capacity		GPH		Maximum exchange capacity		GPH		Maximum exchange capacity		GPH	
	BTU/h	kW	1st hour	Continuous	BTU/h	kW	1st hour	Continuous	BTU/h	kW	1st hour	Continuous
TurboMax 23	390 000	114	697	670	270 000	79	336	326	180 000	53	186	181
TurboMax 24	520 000	152	920	894	365 000	107	451	440	240 000	70	246	242
TurboMax 33	390 000	114	706	670	270 000	79	340	326	180 000	53	187	181
TurboMax 34	520 000	152	930	894	365 000	107	455	440	240 000	70	248	242
TurboMax 43	390 000	114	718	670	270 000	79	345	326	180 000	53	189	181
TurboMax 44	520 000	152	942	894	365 000	107	460	440	240 000	70	250	242
TurboMax 45	650 000	191	1 165	1 117	455 000	133	568	549	300 000	88	310	302
TurboMax 65	650 000	191	1 189	1 117	455 000	133	578	549	300 000	88	314	302
TurboMax 65A	650 000	191	1 184	1 117	455 000	133	576	549	300 000	88	313	302
TurboMax 109	1 165 000	341	2 122	2 002	820 000	240	1 037	989	545 000	160	569	549
TurboMax 109A	1 165 000	341	2 112	2 002	820 000	240	1 033	989	545 000	160	567	549

[1] 40 °F domestic cold water supply and 180 °F boiler water temperature.
[2] DHW: domestic hot water

SPECIFICATIONS

Model	Tank volume	Exchange surface	Max DHW flow[1]	Domestic water connections	Heating water connections	Height	Diameter	Weight
TurboMax 23	26 US gallons	19.6 sq. ft	9 gpm	1 1/4" Sweat M	1 1/4" NPTM	47 1/2"	18"	150 lbs.
TurboMax 24	26 US gallons	26.2 sq. ft	12 gpm	1 1/2" Sweat M	1 1/4" NPTM	47 1/2"	18"	160 lbs.
TurboMax 33	36 US gallons	19.6 sq. ft	9 gpm	1 1/4" Sweat M	1 1/4" NPTM	64 1/4"	18"	185 lbs.
TurboMax 34	36 US gallons	26.2 sq. ft	12 gpm	1 1/2" Sweat M	1 1/4" NPTM	64 1/4"	18"	195 lbs.
TurboMax 43	48 US gallons	19.6 sq. ft	9 gpm	1 1/4" Sweat M	1 1/4" NPTM	54 1/2"	22"	200 lbs.
TurboMax 44	48 US gallons	26.2 sq. ft	12 gpm	1 1/2" Sweat M	1 1/4" NPTM	54 1/2"	22"	210 lbs.
TurboMax 45	48 US gallons	32.7 sq. ft	15 gpm	1 1/2" Sweat M	1 1/4" NPTM	54 1/2"	22"	220 lbs.
TurboMax 65	72 US gallons	32.7 sq. ft	15 gpm	1 1/2" Sweat M	1 1/2" NPTM	64 1/2"	24"	285 lbs.
TurboMax 65A	67 US gallons	32.7 sq. ft	15 gpm	2" Sweat M	1 1/2" NPTM	67"	24"	380 lbs.
TurboMax 109	119 US gallons	58.9 sq. ft	27 gpm	2" Sweat M	2" NPTM	72 3/4"	28 5/16"	455 lbs.
TurboMax 109A	110 US gallons	58.9 sq. ft	27 gpm	2 1/2" Sweat M	2" NPTM	74 3/4"	28 5/16"	615 lbs.

[1]These values must be reduced for high temperature and continuous flow applications.

- Standby loss < 1/2 °F per hour
- Heat transfer efficiency: 99%
- Output temperature up to 200 °F
- Maximum operating pressure of 150 PSI (200 PSI on model 109A)

15-YEAR RESIDENTIAL WARRANTY
ON THE RESEVOIR AND COPPER COILS

10-YEAR COMMERCIAL WARRANTY
ON THE RESERVOIR AND COPPER COILS

2-YEAR WARRANTY
ON MECHANICAL PARTS

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Only for 65A and 109A models

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