

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

NEW DESIGN. SAME PROVEN TECHNOLOGY.

- High-performance HFC-free polyurethane insulation (2 in.)
- Standard additional connections
- Increased thermal mass volume



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 build-up 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.

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

ADDITIONAL CONNECTIONS INCLUDED.

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 water supply
2. Heating water return
3. Domestic cold water
4. Domestic hot water
5. Pressure relief valve
6. Temperature and pressure indicator
7. Tank drain valve
8. Immersion well
9. Automatic air vent
10. Adjustable feet support
11. Additional connections
12. 2" HFC-free polyurethane insulation
13. Aquastat with adjustable temperature differential



DOMESTIC HOT WATER AND HEATING APPLICATION

**TURBOMAX WITHOUT THE USE
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.

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.

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.

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%**.

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.

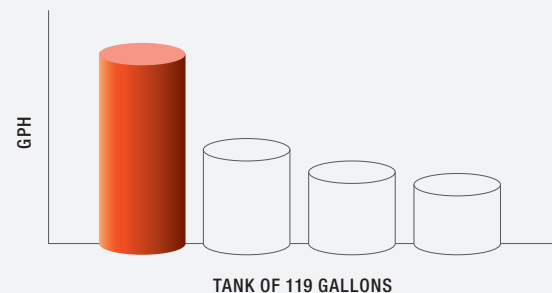
COMPATIBLE WITH ALL SOURCES OF THERMAL ENERGY

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.

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 gallons¹

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	1 st hour	Continuous	BTU/h	kW	1 st hour	Continuous	BTU/h	kW	1 st hour	Continuous
TurboMax 30-3	380 000	111	683	653	270 000	79	338	326	180 000	53	186	181
TurboMax 50-3	380 000	111	703	653	270 000	79	346	326	180 000	53	190	181
TurboMax 50-5	645 000	189	1 159	1 109	455 000	133	569	549	300 000	88	313	302
TurboMax 80-5	645 000	189	1 189	1 109	455 000	133	581	549	300 000	88	316	302
TurboMax 80-5A	645 000	189	1 189	1 109	455 000	133	581	549	300 000	88	316	302
TurboMax 120-9	1 165 000	341	2 122	2 002	820 000	240	1 038	990	545 000	160	569	549
TurboMax 120-9A 125	1 165 000	341	2 122	2 002	820 000	240	1 038	990	545 000	160	569	549
TurboMax 120-9A 200	1 165 000	341	2 122	2 002	820 000	240	1 038	990	545 000	160	569	549

¹ 40 °F domestic cold water supply and 180 °F boiler water temperature.

² DHW: domestic hot water

SPECIFICATIONS

Model	Max pressure	Tank volume	Exchange surface	Max DHW flow ¹	Domestic water connections	Heating water connections	Height	Diameter	Weight
TurboMax 30-3	150 psi	30 US gallons	19.6 sq. ft.	9 gpm	1 1/4" Sweat M	1 1/4" NPTM	59 11/16"	18"	170 lbs.
TurboMax 50-3	150 psi	50 US gallons	19.6 sq. ft.	9 gpm	1 1/4" Sweat M	1 1/4" NPTM	60 11/16"	22"	212 lbs.
TurboMax 50-5	150 psi	50 US gallons	32.7 sq. ft.	15 gpm	1 1/2" Sweat M	1 1/4" NPTM	60 11/16"	22"	230 lbs.
TurboMax 80-5	150 psi	80 US gallons	32.7 sq. ft.	15 gpm	1 1/2" Sweat M	1 1/2" NPTM	75 3/8"	24"	308 lbs.
TurboMax 80-5A	150 psi	80 US gallons	32.7 sq. ft.	15 gpm	2" Sweat M	1 1/2" NPTM	75 3/8"	24"	317 lbs.
TurboMax 120-9	150 psi	119 US gallons	58.9 sq. ft.	27 gpm	2" Sweat M	2" NPTM	77 7/16"	28"	430 lbs.
TurboMax 120-9A 125	125 psi	120 US gallons	58.9 sq. ft.	27 gpm	2" Sweat M	2" NPTM	77 7/16"	28"	450 lbs.
TurboMax 120-9A 200	200 psi	120 US gallons	58.9 sq. ft.	27 gpm	2" Sweat M	2" NPTM	77 7/16"	28"	540 lbs.

¹These 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

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



Only for
80-5A and
120-9A models



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