

ARTESIAN

INDIRECT WATER HEATER



Dunkirk[®] 
America's Hottest Boiler Value!

An ISO 9001-2000 Certified Company

ARTESIAN

INSTANTANEOUS WATER HEATER

The Artesian Instantaneous Water Heater, by Dunkirk, supplies hot water to the home or business utilizing high-performance, cost-effective, indirect hydronic technology.

Innovative Technology

The Artesian provides unsurpassed heating effectiveness through an innovative design. Its tank contains circulating boiler water that heats domestic water flowing through three copper coils. Domestic water enters the top of the coil heat exchanger traveling downward in a unique counter-flow configuration, then circulates upward to achieve maximum heating effectiveness.

Unlimited Hot Water

The Artesian supplies unlimited hot water for as long as needed due to the large heat transfer surface provided by its coils and the efficient transfer of heat from the boiler water*. It continuously produces hot water at 140°F and can also supply hotter water for commercial use.

**Consult table for output rates based upon boiler capacity to achieve continuous flow.*

Corrosion & Scaling Minimized

The Artesian's tank is filled with boiler water, not fresh water that contains oxygen and mineral salts. This extends the life of the water heater and eliminates the most common failures of conventional indirect water heaters, tank leaks.

High Efficiency

The Artesian Indirect Water Heater will immediately begin paying returns on the home or business owner's initial investment by substantially lowering water heating costs. In addition, the Artesian can enhance boiler efficiency for even greater savings by returning cooled water to the boiler supply system which lowers the flue temperature, thus improving boiler efficiency by 0.5-1%.

Counter-flow Heat Exchange

The Artesian's configuration makes water heating exceptionally effective and minimizes the head loss typical in conventional indirect water heaters.

Small Circulating Pump

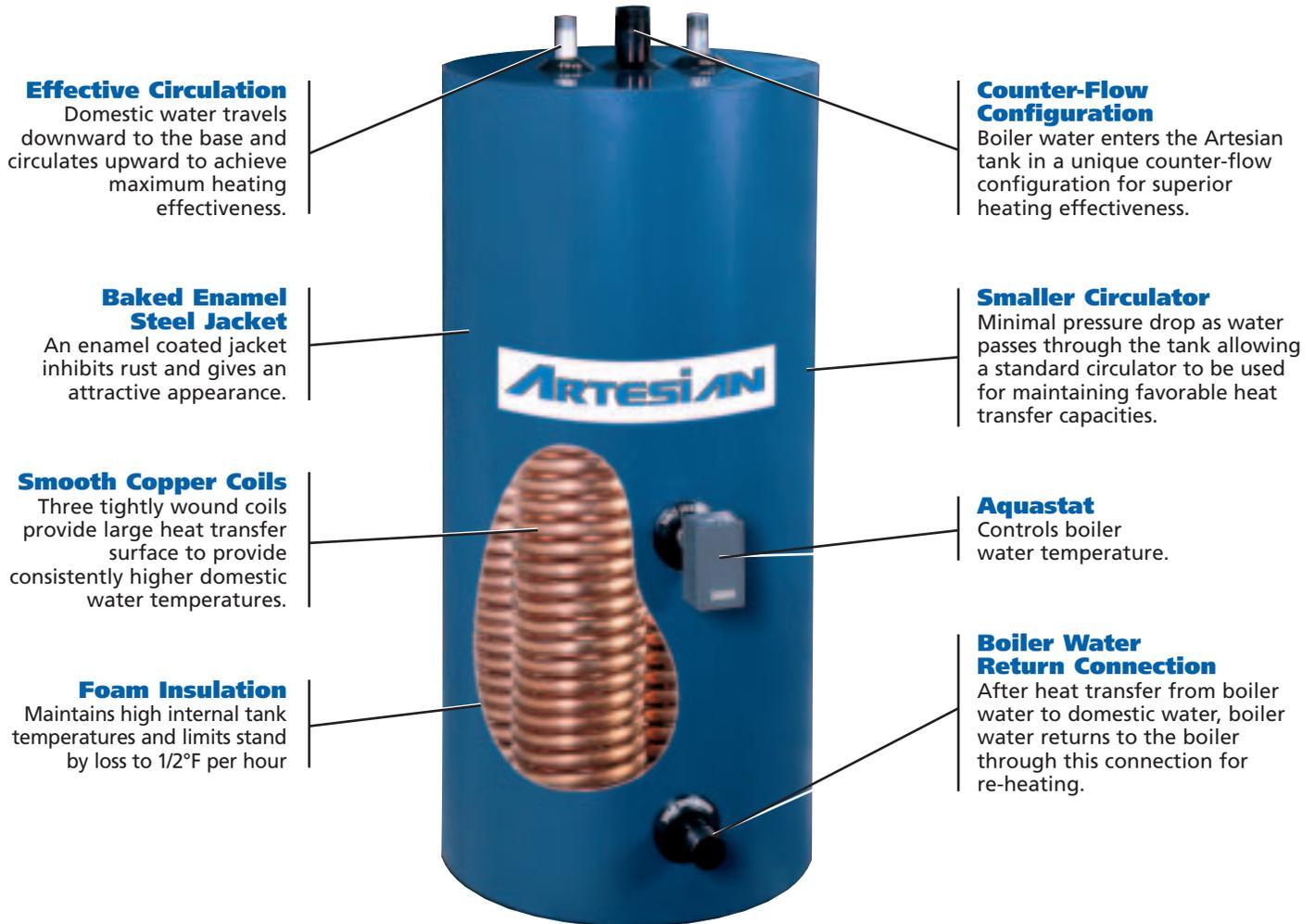
The Artesian requires only a small circulating pump, since water circulates through its tank instead of its coils therefore having minimal pressure drop to maintain favorable heat transfer capacities.

Lifetime Warranty

Dunkirk offers a limited lifetime warranty on the Artesian models to further promote our commitment to exceptional product performance.



FEATURES & BENEFITS



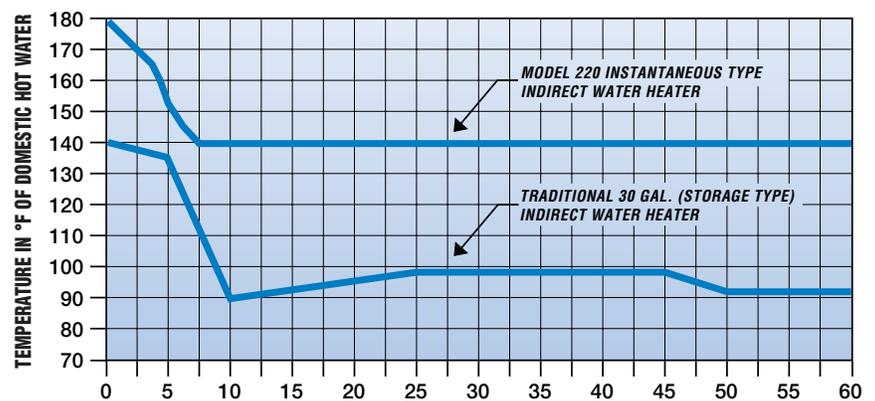
ARTESIAN INDIRECT STANDARD EQUIPMENT

- Copper Coil Heat Exchanger
- Carbon Steel Tank
- 3/4" Copper Connections
- 2" High Density Foam
- Boiler Water Temperature Control
- 1-1/4" NPT Steel Boiler Supply/Return
- Recyclable Cardboard Container

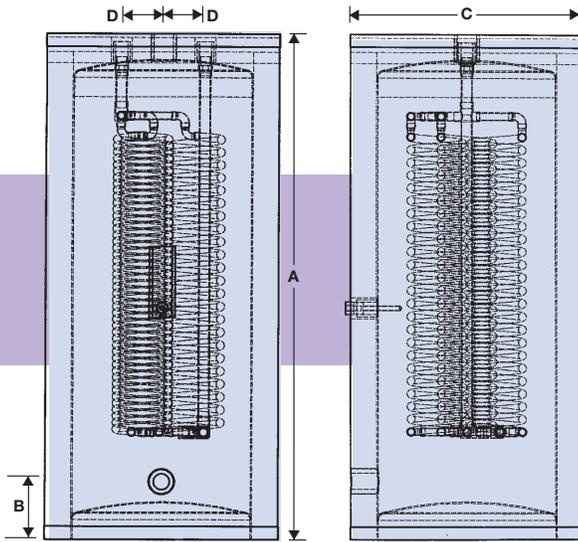
OPTIONAL EQUIPMENT

- Thermostatic Mixing Valve

THERMAL PERFORMANCE DURING ONE HOUR CONTINUOUS DRAW



Test Conditions: Boiler Output: 120,000 BTU./HR. (Both Units)
 Boiler Water Supply Temperature: Artesian 220 - 180°F
 Traditional Indirect - 180°F
 Domestic Water Flow Rate: 2.6 GPM (Both Units)
 Boiler Water Flow Rate: 3.4 GPM (Both Units)



PHYSICAL SPECIFICATIONS:

Dimensions (inches)	A	B	C	D
Artesian 220	39.4	4.5	18.06	3.25
Artesian 340	46.4	4.5	18.06	3.25
Coil Surface (square feet)				
Artesian 220	17 sq. ft. (100 linear feet)			
Artesian 340	20 sq. ft. (119 linear feet)			
Weight (pounds)	Net	Full		
Artesian 220	117	269		
Artesian 340	141	357		

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RATINGS & CAPACITIES

BOILER OUTPUT MBH	FLOW RATING AT 140°F			FLOW RATING AT 110°F			MIN. BOILER WATER FLOW GAL/MIN
	First Hour	Continuous	Continuous	First Hour	Continuous	Continuous	
ARTESIAN MODEL 220							
50	78	72	1.20	117	108	1.8	2.7 (Taco 007)
70	102	95	1.58	153	142	2.4	2.7 (Taco 007)
90	129	120	2.00	193	180	3.0	2.7 (Taco 007)
110	156	147	2.45	233	220	3.7	3.4 (Taco 007)
140	195	187	3.12	292	280	4.7	5.4 (Taco 007)
160	220	213	3.55	330	320	5.3	6.5 (Taco 007)
ARTESIAN MODEL 340							
160	226	213	3.55	339	320	5.3	4.1 (Taco 007)
190	265	253	4.22	398	380	6.3	5.7 (Taco 007)
220	305	294	4.90	456	440	7.3	6.7 (Taco 0012)
250	343	333	5.55	516	500	8.3	9.0 (Taco 0012)

Test Conditions: 50°F domestic water in, 90° rise and 180°F boiler water in.
The max pressure drop of domestic water is 4 psi.

Pressure Ratings: Maximum Allowable Tank Working Pressure – 150 psi.
Heat exchangers are tested @ 300 psi.

Specifications and dimensions are subject to change without notice.
Made in America by American Craftsmen.



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