

Indirect-Fired Water Heaters



A New Lineup from the Most Recognized Name in the Industry



Introduction



AMTROL'S full line of indirects has a heater to fit every installation. Sizes are available from 26-gallon lowboy models to 119-gallon commercial units all utilizing a forged brass heat exchanger plate with hard piped connections. A Limited Lifetime or 5-year warranty can be selected on the same product, giving you price options. The lineup now includes two new series: The BoilerMateTM Top DownTM, a 41-gallon heater designed by contractors to decrease installation time and make maintenance easy; and the Dual CoilTM Series with the ability to provide radiant heat and domestic hot water from the same indirect heater.

AMTROL also knows that you want your installations to look as good as they function, so we provide matching colors for popular boilers at no charge - just ask your wholesaler or sales representative for information.

Finally, AMTROL provides a drain, temperature control and relief valve with every BoilerMate[™] because you shouldn't have to pay for the parts you need anyway.

Maximized Heat-Transfer Technology

Our design begins with copper for maximum heat transfer. Copper conducts heat approximately:

- 8 times faster than cupronickel
- 25 times faster than stainless steel

Maximized height/diameter spacing to create a chimney effect of thermal currents which scrubs more heat into the water faster.

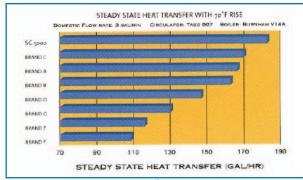
High-output capabilities to handle larger demands.

SmartControl

- Operates on 24V or 120V
- Simple up/down arrows to change settings
- Built-in diagnostics
- Pre-set from factory for install-and-go
- Built-in priority relay
- Post-purge failure takes advantage of boiler waste heat
- Adjustable temperature differential
- *All models are still available with a standard dial aquastat.

SC-5000 Heat Exchanger

- High-performance in a durable package
- Brass plate and cold water inlet pipe provide a strong connection and meet stringent safety codes
- Threaded black iron pipe for the boiler supply and return withstand rough handling and require no back-up wrench
- Low pressure drop —
 multiple coil passes
 allow the use of a standard
 circulator. No large, expensive pump
 necessary.





BoilerMate™ Classic Series

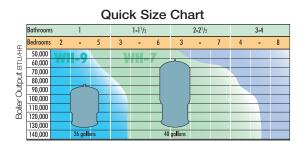


The AMTROL® BoilerMate™ Classic Series tanks are perfect for residential applications and are available in 26and 41-gallon sizes. The Classic Series tanks use a seamless plastic liner that will not crack, chip or peel. This polyethylene reservoir is surrounded by high-density urethane insulation and enclosed in a steel outer shell with a durable, appliance-like finish.

Selecting the right model for your home is easy:

Just count the number of bathrooms and bedrooms you have and look on your boiler for its net output in BTU/HR.

Sizing is based on standard shower head flows (2.5 to 3 gpm). For whirlpool sizing applications, consult your AMTROL representative.



Specifications

Model Number	Capacity (gallons)	Height (inches)	Diameter (inches)	Shipping Weight (lbs.)	Cold Water inlet-nptm	Hot Water outlet-nptf	Boiler Supply	Boiler Return
WH-9	26	36.5	22	90	3/4"	3/4"	3/4" NPTM	³ /4" NPTM
WH-7	41	48	22	134	3/4"	3/4"	3/4" NPTM	3/4" NPTM
WH-41	41	48	22	134	3/4"	3/4"	3/4" NPTM	3/4" NPTM
WH-9DW	26	36.5	22	100	3/4"	3/4"	3/4" Union Sweat	3/4" Union Sweat
WH-7DW	41	48	22	144	3/4"	3/4"	3/4" Union Sweat	3/4" Union Sweat
WH-41DW	41	48	22	144	3/4"	3/4"	3/4" Union Sweat	3/4" Union Sweat

Performance

WH-9 Series BoilerMate™ Classic

- 26 Gallons
- Limited lifetime warranty
- · Compact design to fit small spaces
- Available models (see option codes): WH-9L, WH-9Z, WH-9P, WH-9LDW, WH-9ZDW

WH-7 Series BoilerMate™ Classic

- 41 Gallons
- Limited lifetime warranty
- Most popular model
- Available models (see option codes):

WH-7L, WH-7Z, WH-7P, WH-7LDW, WH-7ZDW

WH-41 Series BoilerMate™ Classic

- 41 Gallons
- Transferable 5-year warranty
- Same construction as WH-7
- Recharge 41 gallons in as fast as 12 min.
 Low-cost alternative for new construction, housing projects and retrofit
 - Available models (see option codes):

WH-41L, WH-41Z, WH-41LDW, WH-41ZDW

WH-9 SERIES					
BOILER OUTPUT (5 gpm input- to BoilerMate)	1 FIRST-HOUR RATING (90°F rise)	2 CONTINUOUS FLOW (70°F rise steady state)			
BTU/HR	GPH	GPH			
40,000	75	69			
60,000	102	104			
80,000	129	139			
100,000	156	173			
120,000	184	208			
140,000	211	242			



Available with SmartControl or Standard Dial Aquastat

WH-7, WH-41 SERIES						
BOILER OUTPUT (5 gpm input– to BoilerMate)	1 FIRST-HOUR RATING (90°F rise)	2 CONTINUOUS FLOW (70°F rise steady state)				
BTU/HR	GPH	GPH				
40,000	89	69				
60,000	116	104				
80,000	143	139				
100,000	170	173				
120,000	197	208				
140,000	224	242				



Available with SmartControl or Standard Dial Aquastat

Option Codes:

Z = electromechanical thermostat, packaged without circulator

DW = heat exchanger with double-wall tubing, vented to atmosphere IAPMO listed

P = SmartControl packaged with circulator & flanges

SmartControl packaged without circulator

BoilerMate™ Top Down™ Series



NO ONE CAN TOP THIS. AMTROL[®] BoilerMate™ Top Down™ Series water heaters place all connections up high for fast installation and easy maintenance. The coil is piped horizontally to the exterior of the tank with slots for easy removal if cleaning is needed. Top Down Series BoilerMate heaters are based on the trusted WH-7 design with a seamless plastic liner and the proven SC-5000 heat exchanger.

Specifications

Model Number	Capacity (gallons)	Height (inches)	Diameter (inches)	Shipping Weight (lbs)	Cold Water inlet-nptm	Hot Water outlet-nptf	Boiler Supply nptm	Boiler Return nptm
TD-7L	41	51	22	141	3/4"	3/4"	3/4"	3/4"
TD-7Z	41	51	22	141	3/4"	3/4"	3/4"	3/4"
TD-41L	41	51	22	141	3/4"	3/4"	3/4"	3/4"
TD-41Z	41	51	22	141	3/4"	3/4"	3/4"	3/4"
TD-7P*	41	51	22	141	3/4"	3/4"	3/4"	3/4"

^{*}Packaged with integral flow check circulator.

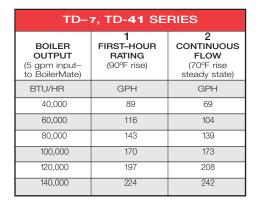
See why the BoilerMate™ Top Down™ tops the competition.

BoilerMate Top Down Features:





- Pre-piped connections to tank exterior are horizontal for easy coil cleaning
- Rugged, full length coil is pre-assembled and tested, no need to install
- Temperature and pressure relief valve included and pre-piped
- Seamless non-porous plastic reservoir that will not crack, chip, flake or peel
- Solid brass threaded fittings provide long lasting strength
- The industry's most energy efficient heat exchanger coil with high flow rates and low pressure drops provides outstanding performance using a standard-size circulator
- Bottom drain piped to stand for complete and easy draining no pump or siphon needed
- Available with a Limited Lifetime (TD-7) or 5-year Warranty (TD-41) as a lower cost option





BoilerMate™ Premier Series



For your large or extended-draw heavy use applications, the AMTROL® BoilerMateTM Premier Series tanks are available in 60-, 80- and 119-gallon sizes. Premier Series tanks offer large dump capabilities and rapid recovery. 316-L stainless steel tanks are surrounded by thick foam insulation and protected by a dent-resistant plastic outer jacket. A large top-mounted access flange is included to make cleaning an easy procedure.

Specifications

Model Number	Capacity (gallons)	Height (inches)	Diameter (inches)	Shipping Weight (lbs.)	Cold Water inlet-nptm	Hot Water outlet-nptf	Boiler Supply	Boiler Return
WHS-60	60	54	26	160	3/4"	3/4"	3/4" NPTM	3/4" NPTM
WHS-80	80	66	26	170	3/4"	3/4"	3/4" NPTM	3/4" NPTM
WHS-120	119	71	293/4	210	3/4"	3/4"	3/4" NPTM	3/4" NPTM
WHS-60DW	60	54	26	178	3/4"	3/4"	3/4" Union Sweat	3/4" Union Sweat
WHS-80DW	80	66	26	188	3/4"	3/4"	3/4" Union Sweat	3/4" Union Sweat

Performance

WHS-60 BoilerMate™ Premier

- 60-Gallon storage
- Great for households with high water use
- Available models: WHS-60, WHS-60Z, WHS-60DW, WHS-60ZDW

WHS-60						
BOILER OUTPUT (5 gpm input– to BoilerMate)	1 FIRST-HOUR RATING (90°F rise)	2 CONTINUOUS FLOW (70°F rise steady state)				
BTU/HR	GPH	GPH				
40,000	105	69				
60,000	133	104				
80,000	160	139				
100,000	187	173				
120,000	214	208				
140,000	241	242				



Available with SmartControl or Standard Dial Aquastat

WHS-80 BoilerMate™ Premier

- 80-Gallon storage
- High volume for large whirlpools
- Perfect for hot tubs, multi-head showers and other high demands
- Available models: WHS-80, WHS-80Z, WHS-80DW, WHS-80ZDW

WHS-80						
BOILER OUTPUT (5 gpm input- to BoilerMate)	1 FIRST-HOUR RATING (90°F rise)	2 CONTINUOUS FLOW (70°F rise steady state)				
BTU/HR	GPH	GPH				
40,000	123	69				
60,000	150	104				
80,000	177	139				
100,000	204	173				
120,000	231	208				
140,000	258	242				



Available with SmartControl or Standard Dial Aquastat

WHS-120 BoilerMate™

- 119-Gallon storage
- Maximum volume for maximum delivery
- Available in multiple high-output coil configurations
- Available models: WHS-120, WHS-120Z

WHS-120						
BOILER OUTPUT (5 gpm input- to BoilerMate)	1 FIRST-HOUR RATING (90°F rise)	2 CONTINUOUS FLOW (70°F rise steady state)				
BTU/HR	GPH	GPH				
40,000	158	69				
60,000	185	104				
80,000	212	139				
100,000	239	173				
120,000	266	208				
140,000	293	242				



Available with SmartControl or Standard Dial Aquastat

Ratings terms:

Always read the fine print before selecting an indirect-fired water heater. AMTROL uses real-world numbers to bring you the performance you expect. All performance figures are calculated using 180°F boiler, standard domestic temperature rise and an off-the-shelf circulator pump.

- 1 FIRST-HOUR RATING the ability of the water heater to supply hot water in a 60-minute period, assuming that the hour starts with both boiler water and domestic content up to set temperature. It is the sum of the usable storage capacity plus the amount of heated water generated during the 60-minute period. The rate is based on:
- 90°F temperature rise
- Boiler mass heat sink equivalent to 10 lbs. of water
- No low limit on boiler

It should not be considered a true measurement of performance or recovery during a normal intermittent (real world) draw period of 24 hours. During such real-world usage, the actual recovery ability of the water heater may be more or less than the "first-hour" rating, depending upon usage and installation parameters.

- 2 CONTINUOUS FLOW the steady domestic water flow rate available at a given boiler heat output. The rate is based on:
- 70°F temperature ris
- Boiler high limit set 20°F (min.) above BoilerMate[™] set point

BoilerMate™ Commercial Series



AMTROL's BoilerMate Commercial indirect-fired water heaters are available in single or double-wall construction. Universal heat exchanger flanges and top cleanout plates make the Premier Series the most versatile indirect for multiple-heater installations and commercial applications. The 41-gallon WH-7C is well suited to light commercial applications such as restaurants, laundries and small rental properties.

Specifications

Model Number	Capacity (gallons)	Height (inches)	Diameter (inches)	Shipping Weight (lbs.)	Cold Water inlet-nptm	Hot Water outlet-nptf	Boiler Supply	Boiler Return
WH-7C	41	48	22	144	3/4"	3/4"	3/4" NPTM	3/4" NPTM
WH-7C-DW	41	48	22	151	3/4"	3/4"	1" Union Sweat	1" Union Sweat
WHS-60ZC	80	54	26	168	1"	1"	1" NPTM	1" NPTM
WHS-60-ZCDW	60	54	26	178	1"	1"	1" Union Sweat	1" Union Sweat
WHS-80ZC	80	66	26	178	1"	1"	1" NPTM	1" NPTM
WHS-80-ZCDW	80	66	26	188	1"	1"	1" Union Sweat	1" Union Sweat
WHS-120-ZC	119	71	29	218	1"	1"	1" NPTM	1" NPTM
WHS-120-ZCDW	119	71	293/4	228	1"	1"	1" Union Sweat	1" Union Sweat

Performance

WH-7C, WH-7CDW					
BOILER OUTPUT (7 gpm input- to BoilerMate)	1 FIRST-HOUR RATING (90°F rise)	2 CONTINUOUS FLOW (70°F rise steady state)			
BTU/HR	GALLONS	GPH			
100,000	170	172			
120,000	197	207			
140,000	223	241			
160,000	250	275			
180,000	277	310			
200,000	304	344			
220,000	331	379			
240,000	357	413			
260,000	384	448			
280,000	411	482			



WHS-60ZC, WH-60ZCDW					
BOILER OUTPUT (7 gpm input- to BoilerMate)	1 FIRST-HOUR RATING (90°F rise)	2 CONTINUOUS FLOW (70°F rise steady state)			
BTU/HR	GALLONS	GPH			
100,000	185	173			
120,000	212	208			
140,000	239	242			
160,000	266	277			
180,000	293	312			
200,000	320	346			
220,000	346	379			
240,000	372	413			
260,000	399	448			
280,000	426	482			



WHS-80ZC, WHS-80ZCDW					
BOILER OUTPUT (7 gpm input– to BoilerMate)	1 FIRST-HOUR RATING (90°F rise)	2 CONTINUOUS FLOW (70°F rise steady state)			
BTU/HR	GALLONS	GPH			
100,000	202	173			
120,000	229	208			
140,000	256	242			
160,000	283	277			
180,000	310	312			
200,000	337	346			
220,000	363	379			
*240,000	389	413			
260,000	416	448			
280,000	443	482			



WHS-120ZC, WHS-120ZCDW				
BOILER OUTPUT (7 gpm input- to BoilerMate)	1 FIRST-HOUR RATING (90°F rise)	2 CONTINUOUS FLOW (70°F rise steady state)		
BTU/HR	GALLONS	GPH		
100,000	236	173		
120,000	263	208		
140,000	289	242		
160,000	316	275		
180,000	343	310		
200,000	370	344		
220,000	397	379		
240,000	423	413		
260,000	450	448		
280,000	477	482		



Maximum BTU transfer with 180°F boiler water: *ZCDW Models = 240,000

BoilerMate™ Dual Coil™ Series



The ultimate in flexibility and design savings: Dual CoilTM Series indirects include a secondary top-mounted heat exchanger for use as a hydronic heat source or additional input. The temperature of the domestic water controls the top coil's heat output, eliminating the need for flat plate heat exchangers and mixing systems when properly applied. Available in single wall or IAPMO-approved double-wall construction, the top coil can also provide supplemental input for massive heat transfer capability.

Specifications

Model Number	Capacity (gallons)	Height (inches)	Diameter (inches)	Shipping Weight (lbs.)	Cold Water inlet-nptm	Hot Water outlet-nptf	Bottom Coil Connections	Top Coil Connections	Top Coil Type
DC-80	80	66	26	198	3 _{/4"}	3 _{/4"}	3 _{/4"} NPTF	³ /4" NPTF	Single Wall
DC-80DW	80	69	26	208	3 _{/4"}	3 _{/4"}	1" Union Sweat	1" Union Sweat	Double Wall
DC-120	119	71	29 ³ /4	238	3 _{/4"}	3 _{/4"}	³ /4" NPTF	³ /4" NPTF	Single Wall
DC-120DW	119	74	29 3/4	248	3 _{/4} "	3 _{/4"}	1" Union Sweat	1" Union Sweat	Double Wall

Heating (Output) Applications & Benefits

- Radiant heating
- Snow melt (including glycol systems)
- Bathroom remodels with whirlpool tub and floor warming
- Radiant panels, towel warmers, etc.
- Pool and spa heating
- Small isolated baseboard loops
- Reduces cycling with low-mass/wall-hung boilers
- · Very low return temperature ability without shocking boilers
- Reliable dial aquastat adjustable to 180°F
- Eliminates expensive heat exchangers and mixing systems in many applications

Dual Input Applications & Benefits

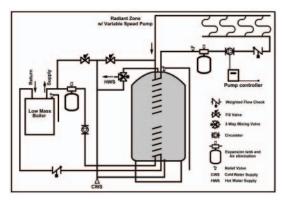
- · Solar collector systems
- · Wood boilers and backup systems
- · Large boiler feeding both coils
- · Double-wall coil for antifreeze systems
- Domestic first hour over 900 gallons when tempered (180°F/120°F)
- Both coils are removable for inspection and cleaning

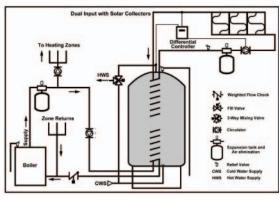
10-Year Limited Warranty

Domestic Water Performance

	DC-80 / DC-80DW				
	BOILER OUTPUT BTU/HR	FIRST-HOUR RATING (90°F rise) GALLONS	CONTINUOUS FLOW (70°F rise steady state) GPH		
Bottom Coil Only	80,000	117	139		
ij	100,000	202	173		
Ë	120,000	229	208		
Bott	140,000	256	242		
_	160,000	283	277		
_	180,000	310	312		
as Input	200,000	337	346		
	240,000	389	413		
Soils	280,000	443	482		
Both Coils	320,000	469	551		
Ď	*360,000	550	620		
	400,000	603	688		

DC-	DC-120/DC-120DW				
BOILER OUTPUT	FIRST-HOUR RATING (90°F rise)	CONTINUOUS FLOW (70°F rise			
BTU/HR	GALLONS	steady state) GPH			
80,000	209	139			
100,000	236	173			
120,000	263	208			
140,000	289	242			
160,000	316	277			
180,000	343	312			
200,000	370	346			
240,000	423	413			
280,000	477	482			
320,000	530	551			
*360,000	584	620			
400,000	637	688			



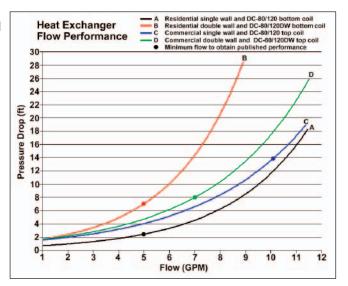




Technical Information

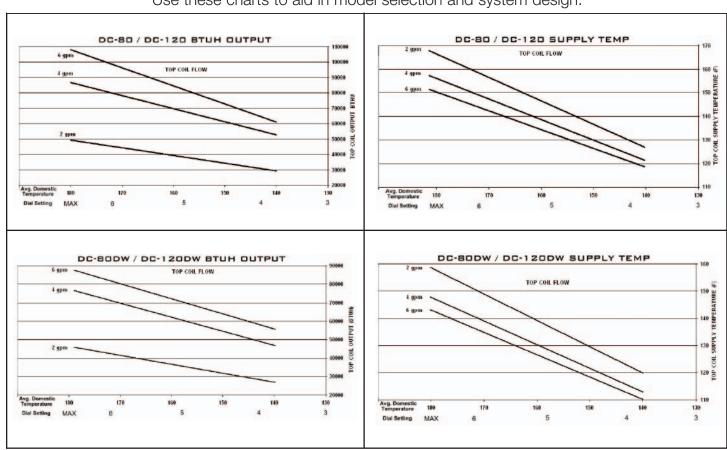


AMTROL® is dedicated to providing you with the technical data you require as a professional. We designed the BoilerMate™ product line to utilize accepted hydronic practices. All of our data assumes standard 180°F boiler temperature and is based on actual product testing.



Dual Coil™ Series: Top Coil Performance Charts

Use these charts to aid in model selection and system design.



^{*}Refer to installation manual for warranty information or visit our website at www.amtrol.com



www.amtrol.com

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