



MODEL WW3E+

TECHNICAL DATA SHEET

E-PLUS COMMERCIAL WATER-TO-WATER HEATER

The AERCO WW3E+ water heater is designed to satisfy potable water heating needs in commercial and institutional environments. The packaged system incorporates real-time, load tracking and responsive controls to maintain accurate hot water temperatures under diversified loads. And AERCO's unique heat exchanger design simplifies maintenance and promotes long life.

Packaged with either electronic or pneumatic controls, the heater maintains outstanding temperature control when operated under constant load conditions with variances held to $\pm 4^{\circ}\text{F}$ under normal load changes. An integrated load monitoring system and high-turndown control valve deliver accurate temperature control without the need for storage tanks, blending valves or other temperature averaging components. When packaged with the electronic control system, the heater can be remotely monitored and/or fully integrated with BAS software.

A parallel stack of helically wound coils form a cross counter-flow heat exchanger. These baffle-free, flexible coils continuously expand and contract with changing water temperatures. The self-descaling nature of this automatic action eliminates the need for periodic, acid cleaning or tube scraping. The generous spacing of the coils mounted in a vertical vessel also provides for extremely low water side velocities – a factor which greatly increases heat exchanger life by reducing erosion. To further ensure longevity, all water wetted parts are copper or copper alloy materials.

The unit's semi-instantaneous design (boiler water in tubes and domestic water in shell) is compatible with Low or High Temperature Boiler Water (LTBW or HTBW). And installation is easy because of its small footprint ($<4\text{ ft}^2$) and doorway size. Tight temperature control, low maintenance, longevity and overall reliability make the AERCO E-Plus the most logical choice for any commercial or institutional domestic water-to-water heating installation.



FEATURES

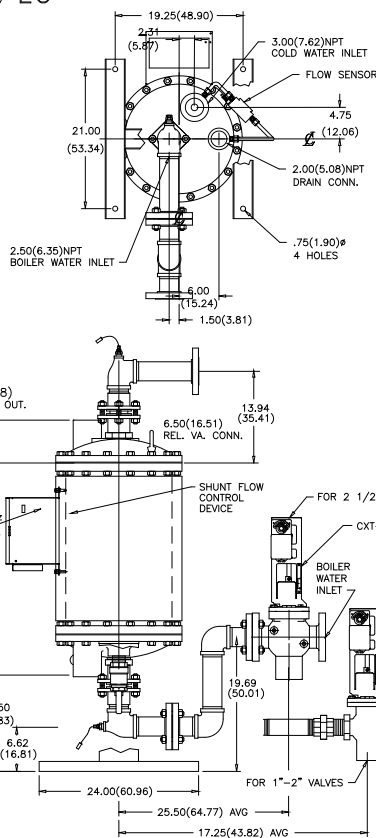
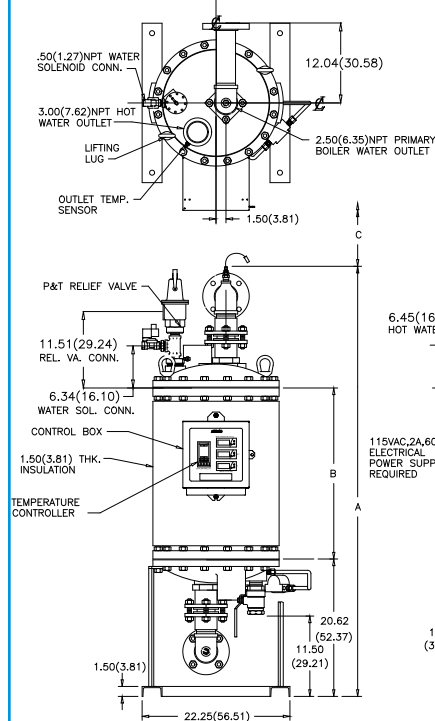
- Accurate Temperature Control $\pm 4^{\circ}\text{F}$
- Choice of Electronic or Pneumatic Controls
- Packaged with 2-Way or 3-Way Control Valve
- Automatic Self-Descaling
- Fully Modulating Variable Primary Input
- Compact Foot Print $<4\text{ ft}^2$
- 10-Year Warranty on Complete Hx*
- 20-Year Warranty on Pressure Vessel and Integral Demand Anticipator*
- All Copper or Copper Alloy Wetted Surfaces
- ASME- B&PV Code Sec. VIII, Div. 1 Stamped
- Supports a Variety of Applications
 - LTBW or HTBW; Up to 450 PSIG, 450°F
 - Intermittent Water Flow Rates: Up to 250 GPM
 - Set Point Range 50°F to 205°F
 - 235 PSIG ASME Working Pressure Certified
 - Single or Multiple Installation
 - Ideal for New or Retrofit

*Consult AERCO website or Engineering Manual for complete warranty details.

DIMENSIONS

MODEL WW3E+ / / EC
 (# COILS) / (VALVE SIZE)

ALL DIMENSIONS SHOWN IN INCHES (CM)



NO. OF COILS	VALVE SIZE IN. (mm)
3	03
4	04
5	05
6	06
7	07
8	08
9	09
10	10
11	11
12	12
13	13
14	14
15	15
16	16
17	17
18	18
19	19
20	20

CONTROL VALVE SIZE	
LINE PRESSURE	PSIG(kPa)
1"	2.54 NPT SCREWED END
1-1/4"	3.18 NPT SCREWED END
1-1/2"	3.81 NPT SCREWED END
2"	5.08 NPT SCREWED END
2-1/2"	6.35 150# ANSI FLANGED END
3"	7.62 150# ANSI FLANGED END
4"	10.16 150# ANSI FLANGED END

MATERIALS OF CONSTRUCTION	
SHELL	CARBON STEEL, SA-53 Gr. B
LINER	COPPER, SB-152, 0.024" THK.
HEADS	BRONZE, SB-62
COILS	COPPER, SB-111 CDA 122 LIGHT DRAWN 0.625" O.D. x 0.049" WALL
RISER	RED BRASS, SB-43

HEATER MODEL	NO. OF COILS	DIM. IN.(CM)			WT. LBS.(Kg.)	
		A	B	C*	DRY	WET
WW3E+03/04	3 OR 4	64.75 (164.47)	25.75 (65.41)	36.50 (92.71)	830 (377)	1030 (467)
WW3E+05/06	5 OR 6	73.62 (186.99)	34.62 (87.93)	45.37 (115.24)	915 (415)	1175 (533)
WW3E+07/08	7 OR 8	82.50 (209.55)	43.50 (110.49)	54.25 (137.80)	1000 (454)	1320 (599)
WW3E+09/10	9 OR 10	91.37 (232.08)	52.37 (133.02)	63.12 (160.32)	1085 (492)	1465 (665)
WW3E+11/12	11 OR 12	100.25 (254.64)	61.25 (155.58)	72.00 (182.88)	1170 (531)	1610 (731)
WW3E+13/14	13 OR 14	109.12 (277.16)	70.12 (178.10)	80.87 (205.41)	1255 (570)	1760 (799)
WW3E+15/16	15 OR 16	118.00 (299.72)	79.00 (200.65)	89.75 (227.97)	1340 (608)	1905 (864)
WW3E+17/18	17 OR 18	126.87 (322.25)	87.87 (223.19)	98.62 (250.49)	1425 (647)	2050 (930)
WW3E+19/20	19 OR 20	135.75 (344.81)	96.75 (245.75)	107.50 (273.05)	1510 (685)	2195 (996)

*RECOMMENDED CLEARANCE FOR IN-PLACE MAINTENANCE

*NOTE: E-PLUS PACKAGED WATER HEATERS CAN BE CONSTRUCTED WITH THESE MATERIALS TO COMPLY WITH SYSTEM REQUIREMENTS.

SERIES E+ HEATER PRESSURE/TEMPERATURE RATINGS							
COIL TUBE MAT'L	RISER MAT'L	SHELL SIDE			TUBE SIDE		
		MAX. WORKING PRESS., PSIG	MAX. TEMP. °F	TEST PRESS. PSIG	MAX. WORKING PRESS., PSIG	MAX. TEMP. °F	TEST PRESS. PSIG
COPPER	RED BRASS	235	350	355	250	400	375
COPPER NICKEL*	RED BRASS	235	350	355	415	400	525
STAIN STEEL*	STAIN. STEEL	235	350	355	680	700	1026

SPECIFICATIONS

w/ Electronic Controls

w/ Pneumatic Controls

- Shell Side Pressure Drop4PSIG @ max. rated flow4PSIG @ max. rated flow
- Ambient Operating Temperature.....0°F to 131°F.....0°F to 131°F
- Electrical Requirements120/1/60 1 Amp.....120/1/60 1 Amp
-220/1/50 1 Amp
- Standby Amperage Draw1 Amp0.1 Amp
- High Limit "Tripped" Amperage Draw1.5 Amp0.5 Amp
- Max. Continuous Water Flow Rate.....125 GPM.....125 GPM
- Max. Intermittent Flow Rate250 GPM.....250 GPM
- Max. Boiler Water Pressure & Temperature
 - With Copper Coils160 PSIG @ 250°F160 PSIG @ 250°F
 - With Copper Nickel Coils415 PSIG @ 400°F415 PSIG @ 400°F
 - With Stainless Steel Coils450 PSIG @ 450°F450 PSIG @ 450°F
- Max. Shell Side Operating Pressure225 PSIG*225 PSIG*
- Adjustable Temperature Controlup to 205°Fup to 230°F
- Adjustable High Limit Controlup to 250°Fup to 250°F
- Water Connection Inlet/Outlet3" FNPT3" FNPT
- Air ConsumptionDoes not apply0.10 scfm@25 PSIG
- Air Supply Min. RequirementsDoes not apply25 PSIG
- Air Supply Max RequirementsDoes not apply30 PSIG

* Standard 150 PSIG, 210°F P&T relief valve supplied; consult AERCO representative for higher settings.

AVAILABLE OPTIONS

- Copper-nickel or 316L stainless steel tubing for increased corrosion resistance
- Dry contacts for remote "High Limit Tipped Status" indication
- Pressure gradient monitoring system can be provided in lieu of double wall construction where codes allow
- Pressure Relief Valves set up to 230 PSIG for high rise applications

Specifications are subject to change. Consult website or contact AERCO HE-8 New Doc 1/07 Print 5M 1/07



AERCO INTERNATIONAL, INC.
 159 PARIS AVENUE, • P.O. BOX 128
 NORTHVALE, NJ 07647-0128