



Quality People. Building Solutions.

Comfort Systems USA (Arkansas), Inc.
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Date: 2/21/2024

Return Request: 3/28/2024

Project: Little Rock West High School

Supplier: Sanders Supply

Manufacturer: Various

Submittal: Plumbing (Domestic Water Heater)

Submittal Number: 22 01 00-11

Drawing # and Installation: Plumbing Drawings

ARCHITECT

Lewis Architects Engineers
11225 Huron Lane, Suite 104
Little Rock, AR 72211
501-223-9302

ENGINEER

Lewis Architects Engineers
11225 Huron Lane, Suite 104
Little Rock, AR 72211
501-223-9302

GENERAL CONTRACTOR

Baldwin & Shell
1000 W. Capitol Ave.
Little Rock, AR 72201
501-374-8677

MECHANICAL SUBCONTRACTOR

Comfort Systems USA (Arkansas), Inc.
9924 Landers Rd.
N. Little Rock, AR 72117
501-834-3320

Notes:

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chowell@comfortar.com

9924 Landers Rd.
No. Little Rock, AR 72117

TWH-1

SpecAdvantage™

For Commercial and Industrial Applications

Specifications

Tankless Electric Water Heater

Applications

- Designed for low duty cycle applications where precise temperature controls and low pressure drop are required

Features

- Designed for commercial and industrial applications
- Capable of high volume and high temperature applications at low duty cycle
- Fully modulating - Predictive control algorithm and diverse safety features ensures precise temperature control
- T&P not required per UL499 (check local codes)
- Thermo-Optical Sensor for infrared element monitoring
- Field programmable, updatable firmware, and adjustable turn-on

Optional Features (NEMA cabinet required)

- N4 (powder coated steel), N4X (304SS) N4X6 (316SS) enclosures
- Free standing legs
- Freeze protection for harsh climate, up to -30°F
- Non-fused or fused electrical disconnect
- GFCI
- Explosion proof - C1D2 Compliant, local certification required. Class Z purge and pressurization system provided with pressure switch for alarm controls. For classification other than C1D2 please contact the factory to discuss options.
- Siren and beacon - audible and visual alarm (C1D2 compliant when paired with explosion proof package)

Product Specifications

Min. Operating Pressure: 35 PSI

Max. Operating Pressure: 150 PSI

Optimum Operating Pressure: 60-90 PSI

U.S. Patent #'s: US20140023354 and US20140178057

Installation Requirements

- Properly sized water hammer arrestor
- Minimum 35 PSI dynamic pressure at inlet
- Sediment filter installed on inlet

Special Design Service

- Inquiries for units for unique applications are welcome. Call our Technical Service department at **1 800 543 6163**.
- Custom orders non-refundable



*The wetted surface of this product contacts by water contains less than 0.25% lead and meets NSF/ANSI 372



Suggested Specification

Tankless water heater shall be an Eemax SpecAdvantage model number **AP 054480-EFD**

Optional factory installation in a ____ (N4/N4X/N4X6) enclosure.

Enclosure to be fitted with the following features:

___ FP	Freeze protection (-30°F)
___ EDS	Non-fused disconnect
___ FDS	Fused disconnect
___ EP	Explosion proof (C1D2 compliant)
___ GFCI	True RMS GFCI with digital display and reset
___ SK	24" legs for free standing applications
___ RD	Remote display
___ SB	Siren and Beacon
___ DC	Dry contact
___ ES	Emergency stop - push button

Tankless water heater must have water connections on the bottom, and be constructed with NSF 61 listed materials. Direct heating element to be non-ferrous, cartridge style, designed for field replacement. Tankless water heater to utilize a dual PID algorithm, actively managing power application to real-time system demand. Integrated flow meter capable of volumes in excess of 30 GPM drives predictive control algorithm. Water heater must be protected by redundant safeties. Redundant safeties to include thermo mechanical safety switches, infrared element monitoring via thermo optical sensors, and dual temperature monitoring via master control board. Tankless water heater user interface must have the following capabilities:

- Selectable display including Celsius/Fahrenheit, inlet temperature, outlet temperature, flow rate, and setpoint temperature.
- Capable of displaying flow rate in gallons per minute or liters per minute.
- Diagnostic features to include error and fault code display.
- Control board must maintain error/fault history of 9 events.
- Capable of factory coded temperature setting (max. and min.)
- Capable of firmware upgrades via USB port
- Capable of BMS integration - contact factory
- Compliant with ANSI Z358.1 tepid water without additional mixing or purge features (inlet temperatures must not exceed 100°F when selecting an EE or EFD option)

NOTE: For recirculation applications, follow the installation schematics in the installation manual.

SpecAdvantage

For Commercial and Industrial Applications

Specifications

Tankless Electric Water Heater

Suffix Definitions

S **Sanitation.** Shipped at 180°F with temp range of 100°F-180°F max.

EE **Emergency Eyewash.** Max. outlet temperature 90°F. Conforms to ANSI Z358.1 tepid water without additional mixing valve. Shipped with display "Locked."

EFD **Emergency Eye, Face & Drench.** Max. outlet temperature 90°F. Conforms to ANSI Z358.1 tepid water without additional mixing valve. Shipped with display "Locked."

Note: Models with an EE or EFD suffix are not to be fed to a thermostatic mixing valve. If a thermostatic mixing valve is required, heater of non EE or EFD must be specified.

Note: Models with an EE or EFD suffix have a 90°F maximum temperature. Temperature rise data is provided for reference, but temperature is electronically limited to factory preset not to exceed temperature.

MODEL NUMBER	KW	BTU/H	AMPS PER PHASE	TURN ON (GPM)	RECOMMENDED WIRE SIZE (75° C/CU)	TEMPERATURE RISE °F							
						3.0 GPM	4.0 GPM	5.0 GPM	6.0 GPM	20.0 GPM	23.0 GPM	26.0 GPM	30.0 GPM
VOLTS 208 Three Phase Delta													
AP032208	32	109,189	89	1.0*	3AWG	73°	55°	44°	36°	11°	10°	8°	7°
AP032208 EE	32	109,189	89	1.0	3 AWG	†	55°	44°	36°	11°	10°	8°	7°
AP032208 S	32	109,189	89	2.5**	3 AWG	73°	55°	44°	36°	11°	10°	8°	7°
AP036208	36	122,832	100	1.0*	3 AWG	82°	61°	49°	41°	12°	11°	9°	8°
AP036208 EE	36	122,832	100	1.0	3 AWG	†	†	49°	41°	12°	11°	9°	8°
AP036208 S	36	122,832	110	2.5**	3 AWG	82°	61°	49°	41°	12°	11°	9°	8°
AP041208	41	143,310	113	1.0*	2 AWG	93°	70°	56°	47°	14°	12°	11°	9°
AP041208 EFD	41	143,310	113	1.0	2 AWG	†	†	56°	47°	14°	12°	11°	9°
AP041208 S	41	143,310	113	2.5**	2 AWG	93°	70°	56°	47°	14°	12°	11°	9°
AP054208	54	184,256	150	1.5*	1/0 AWG	†	92°	74°	61°	18°	16°	14°	12°
AP054208 EFD	54	184,256	150	1.5	1/0 AWG	†	†	†	†	18°	16°	14°	12°
AP054208 S	54	184,256	150	6.0**	1/0 AWG	123°	92°	74°	61°	18°	16°	14°	12°
AP064208	64	218,377	178	2.5	3/0 AWG	†	109°	87°	73°	22°	19°	17°	15°
AP064208 EFD	64	218,377	178	2.5	3/0 AWG	†	†	†	†	22°	19°	17°	15°
AP064208 S	64	218,377	178	6.0**	3/0 AWG	146°	109°	87°	73°	22°	19°	17°	15°
VOLTS 480 Three Phase Delta													
AP036480	36	122,837	43	1.0*	8 AWG	82°	61°	49°	41°	12°	11°	9°	8°
AP036480 EE	36	122,837	43	1.0	8 AWG	†	†	49°	41°	12°	11°	9°	8°
AP036480 S	36	122,837	43	2.5**	8 AWG	82°	61°	49°	41°	12°	11°	9°	8°
AP039480	39	133,074	47	1.0*	8 AWG	89°	67°	53°	44°	13°	12°	10°	9°
AP039480 EE	39	133,074	47	1.0	8 AWG	†	†	53°	44°	13°	12°	10°	9°
AP039480 S	39	133,074	47	2.5**	8 AWG	89°	67°	53°	44°	13°	12°	10°	9°
AP048480	48	163,783	58	1.0*	6 AWG	109°	82°	66°	55°	16°	14°	13°	11°
AP048480 EFD	48	163,783	58	1.0	6 AWG	†	†	†	55°	16°	14°	13°	11°
AP048480 S	48	163,783	58	2.5**	6 AWG	109°	82°	66°	55°	16°	14°	13°	11°
AP054480	54	184,256	65	1.5*	6 AWG	†	92°	74°	61°	18°	16°	14°	12°
AP054480 EFD	54	184,256	65	1.5	6 AWG	†	†	†	†	18°	16°	14°	12°
AP054480 S	54	184,256	65	2.5**	6 AWG	123°	92°	74°	61°	18°	16°	14°	12°
AP063480	63	214,965	76	2.5	4 AWG	†	108°	86°	72°	22°	19°	17°	14°
AP063480 EFD	63	214,965	76	2.5	4 AWG	†	†	†	†	22°	19°	17°	14°
AP063480 S	63	214,965	76	6.0**	4 AWG	143°	108°	86°	72°	22°	19°	17°	14°
AP072480	72	245,674	87	2.5	3 AWG	†	†	98°	82°	25°	21°	19°	16°
AP072480 EFD	72	245,674	87	2.5	3 AWG	†	†	†	†	25°	21°	19°	16°
AP072480 S	72	245,674	87	6.0**	3 AWG	†	123°	98°	82°	25°	21°	19°	16°
AP096480	96	327,552	116	2.5	1 AWG	†	†	†	109°	33°	29°	25°	22°
AP096480 EFD	96	327,552	116	2.5	1 AWG	†	†	†	†	33°	29°	25°	22°
AP096480 S	96	327,552	116	6.0**	1 AWG	†	†	131°	109°	33°	29°	25°	22°
AP108480	108	368,511	130	2.5	1 AWG	†	†	†	†	37°	32°	28°	25°
AP108480 EFD	108	368,511	130	2.5	1 AWG	†	†	†	†	37°	32°	28°	25°
AP108480 S	108	368,511	130	6.0**	1 AWG	†	†	148°	123°	37°	32°	28°	25°
AP126480	126	429,930	151	2.5	2/0 AWG	†	†	†	†	43°	37°	33°	29°
AP126480 EFD	126	429,930	151	2.5	2/0 AWG	†	†	†	†	43°	37°	33°	29°
AP126480 S	126	429,930	151	6.0**	2/0 AWG	†	†	†	143°	43°	37°	33°	29°
AP144480	144	491,348	173	2.5	2/0 AWG	†	†	†	†	49°	43°	38°	33°
AP144480 EFD	144	491,348	173	2.5	2/0 AWG	†	†	†	†	49°	43°	38°	33°
AP144480 S	144	491,348	173	6.0**	2/0 AWG	†	†	†	†	49°	43°	38°	33°
VOLTS 600 Three Phase Delta													
AP061600 EFD	61	208,141	59	2.5	6 AWG	†	†	†	†	21°	18°	16°	14°
AP071600 EFD	71	242,262	68	2.5	4 AWG	†	†	†	†	24°	21°	19°	16°
AP102600 EFD	102	348,038	98	2.5	3 AWG	†	†	†	†	35°	30°	27°	23°
AP130600 EFD	130	443,578	125	2.5	1 AWG	†	†	†	†	44°	39°	34°	30°
AP150600 EFD	150	511,821	144	2.5	1/0 AWG	†	†	†	†	51°	45°	39°	34°

* Units with a 1.0 or 1.5 GPM turn-on are limited to 120°F only. Contact Eemax support for applications above 120°F.

† Temperature electronically limited to factory preset temperature.

"C" indicates evaluation and compliance to either Underwriters Laboratories (UL) or Intertek (ETL) under CAN/CSA-C22.2 No. 64/No. 88.

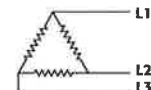
** Contact Eemax for applications requiring lower turn on.

Electrical configuration and requirements

All Eemax three phase units are custom made to order and as such, are non-returnable and non-refundable. Check your electrical supply, making sure all criteria for operating your Eemax water heater are met

Eemax 600V, 480V and 208V Three Phase Units Delta Configuration

Requires: 3 Lives and 1 Ground (earth)



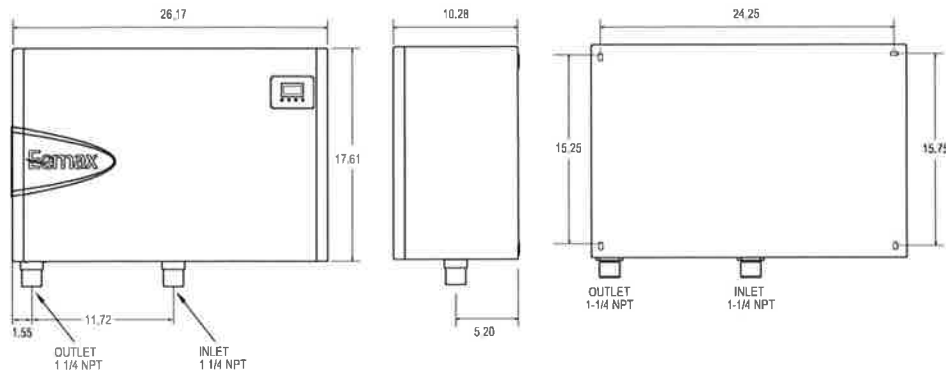
SpecAdvantage

For Commercial and Industrial Applications

Specifications

Tankless Electric Water Heater

Base Model Dimensions



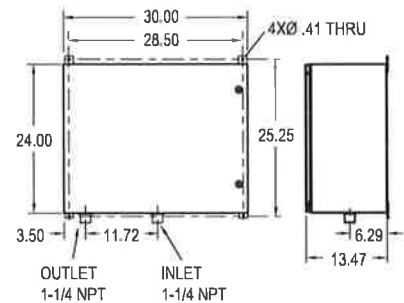
65 lb
Designed for wall mount installation.

NEMA Cabinet Options*

Dimensions: 24"H x 30"W x 13.5"D

- N4** Powder coated steel
- N4X** Corrosion-resistant 304 stainless steel
- N4X6** Corrosion-resistant 316 stainless steel

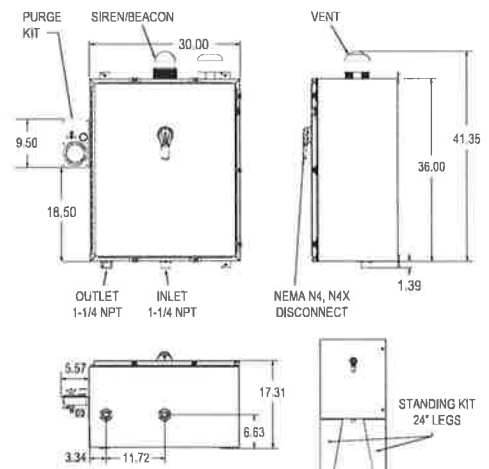
Est. total weight 130 lb
Designed for wall mounted installation. Free standing legs and other options available



NEMA Cabinet Options Accessories

Dimensions: 36"H x 30"W x 17.3"D

- FP** Freeze protection (-30°F)
- EDS** Non-fused disconnect
- FDS** Fused disconnect
- EP** Explosion proof (C1D2 compliant)
- GFCI** True RMS GFCI with digital display and reset
- SK** 24" legs for free standing applications
- RD** Remote display
- SB** Siren and Beacon
- DC** Dry contact
- ES** Emergency stop - push button



Est. total weight 225 lb, varies based on options.
Designed for wall mounted installation. Free standing legs and other options available.

*Refer to page 47 of this specification guide for more details regarding selection.

SpecAdvantage

For Commercial and Industrial Applications

Specifications

Tankless Electric Water Heater

Unit Selection

Base Model (No Suffix)

All SpecAdvantage models are designed for low duty cycle applications where precise temperature controls and low pressure are required. Models without a suffix are set to a maximum temperature of 140°F if the turn on is greater than 1.5 GPM. Models with a 1.0 or 1.5 GPM turn on are limited to 120°F.

Suffixes:

S **Sanitation.** For applications that require high-temperature delivery. Units shipped at 180°F.

EE **Emergency Eyewash.** ANSI Z358.1 tepid water for emergency eyewash stations

EFD **Emergency Eye, Face & Drench.** ANSI Z358.1 tepid water for emergency eye, face, and drench showers

Select the best model based on your hot water requirements. You need a proportional amount of energy to heat the flow (GPM) needed for the application. The chart below shows a range of possible applications and the recommended unit size (kW).

NOTE: For simple calculation, kW reference is based on a 100% heater efficiency.

kW Required = GPM x (temp rise/6.83)

		TEMPERATURE RISE °F														
GPM	20°	30°	40°	50°	60°	70°	80°	90°	100°	110°	120°	130°	140°	150°		
VOLTS 208 Three Phase Delta																
1.5	32 kW	32 kW	32 kW	32 kW	32 kW	32 kW	32 kW	32 kW	32 kW	32 kW	32 kW	32 kW*	32 kW*	32 kW*	36 kW*	
2.5	32 kW	32 kW	32 kW	32 kW	32 kW	32 kW	32 kW	32 kW	36 kW	41 kW	41 kW	54 kW*	54 kW*	54 kW*	64 kW*	
3	32 kW	32 kW	32 kW	32 kW	32 kW	32 kW	32 kW	36 kW	41 kW	54 kW	54 kW	54 kW*	64 kW*	64 kW*		
4	32 kW	32 kW	32 kW	32 kW	36 kW	41 kW	54 kW	54 kW	64 kW							
5	32 kW	32 kW	32 kW	32 kW	41 kW	54 kW	54 kW	64 kW								
6	32 kW	32 kW	36 kW	54 kW	54 kW	64 kW										
7	32 kW	32 kW	41 kW	54 kW	64 kW											
8	32 kW	36 kW	54 kW	64 kW												
10	32 kW	54 kW	64 kW													
15	54 kW															
20	64 kW															
VOLTS 480 Three Phase Delta																
2.5	36 kW	36 kW	36 kW	36 kW	36 kW	36 kW	36 kW	36 kW	39 kW	48 kW	48 kW*	48 kW*	54 kW*	63 kW*	63 kW*	
3	36 kW	36 kW	36 kW	36 kW	36 kW	36 kW	36 kW	48 kW	48 kW	54 kW	54 kW*	63 kW*	63 kW*	72 kW*	72 kW*	
4	36 kW	36 kW	36 kW	36 kW	36 kW	48 kW	48 kW	54 kW	63 kW	72 kW	72 kW*	96 kW*	96 kW*	96 kW*	96 kW*	
5	36 kW	36 kW	36 kW	39 kW	48 kW	54 kW	63 kW	72 kW	96 kW	96 kW	96 kW*	96 kW*	108 kW*	126 kW*	126 kW*	
6	36 kW	36 kW	36 kW	48 kW	54 kW	63 kW	72 kW	96 kW	96 kW	108 kW	108 kW*	126 kW*	126 kW*	144 kW*	144 kW*	
7	36 kW	36 kW	48 kW	54 kW	63 kW	72 kW	96 kW	96 kW	108 kW	126 kW	126 kW*	144 kW*	144 kW*			
8	36 kW	36 kW	48 kW	63 kW	72 kW	96 kW	96 kW	108 kW	126 kW	144 kW	144 kW					
10	36 kW	48 kW	63 kW	96 kW	96 kW	108 kW	126 kW	144 kW								
15	48 kW	72 kW	96 kW	126 kW	144 kW											
20	63 kW	96 kW	126 kW													
23	72 kW	108 kW	144 kW													
26	96 kW	126 kW														
30	96 kW	144 kW														
VOLTS 600 Three Phase Delta																
3	61 kW	61 kW	61 kW	61 kW	61 kW	61 kW	61 kW	61 kW	61 kW							
4	61 kW	61 kW	61 kW	61 kW	61 kW	61 kW	61 kW	61 kW	61 kW							
5	61 kW	61 kW	61 kW	61 kW	61 kW	61 kW	61 kW	61 kW	71 kW							
6	61 kW	61 kW	61 kW	61 kW	61 kW	71 kW	71 kW	71 kW	102kW							
8	61 kW	61 kW	61 kW	61 kW	71 kW	102 kW	102 kW	130 kW								
10	61 kW	61 kW	61 kW	102 kW	102 kW	130 kW	130 kW	150 kW								
15	61 kW	71 kW	102 kW	130 kW	150 kW											
20	61 kW	102 kW	130 kW	150 kW												
23	71 kW	102 kW	150 kW													
26	102 kW	130 kW														
30	102 kW	150 kW														

* S models only

GWH-
1,2,3,4,5,6

COMMERCIAL



SUPER-HIGH-EFFICIENCY (CONDENSING) TANKLESS WATER HEATER

Installation Type	Internal (Indoor) Commercial Applications	
Model Numbers	CU199i (REU-N3237FFC-US) CU160i (REU-N2530FFC-US)	
Approved Gas Types	Natural and Propane	
	AHRI CERTIFIED	UEF up to 0.93
Efficiency	Ratings not certified by AHRI	Thermal Efficiency: Up to 97% EF: 0.96 (CU199i) 0.95 (CU160i)
High Altitude Approved	Up to 10,200 ft (3,109 m)	
Water Flow Control	Water Flow Sensor, Electronic Water Control and Bypass Control	
Controller	Standard: Integrated Controller Optional: MC-91-2US	
Certifications	AHRI, ANSI Z21.10.3, CSA 4.3, and ENERGY STAR®	

Warranty

- Heat Exchanger: 8 years or 12,000 operation hours, whichever occurs first
- All Other Parts and Components: 5 Years
- Reasonable Labor: 1 Year

Safety Devices

Flame Failure - Flame Rod, Boiling Protection, Combustion Fan RPM Check, Over Current - Glass Fuse, Remaining Flame (OHS) and Automatic Frost Protection

Included with Purchase

Tankless Water Heater, Wall Mounting Bracket, Pressure Relief Valve and Adapter, Isolation Valve Kit, Vent Screens (x2), Vent Screen Screws (x2), and Self-Tapping Screws (x2)

Additional Features

- Complies with South Coast Air Quality Management District 14 ng/J or 20 ppm NOx Emission Levels
- Ultra Low NOx
- Tankless Rack System™ Compatible
- 1/2 in. (13 mm) Gas Line Compatible

FLEXIBLE VENTING OPTIONS

- Concentric or Schedule 40 PVC/CPVC
- Direct Vent (Concentric and Twin Pipe)
- Non-Direct Vent (Room Air)
- Common Vent (Direct Vent and Room Air)
Vent lengths up to 150 ft with eight Tankless Water Heater units.
- Maximum Equivalent Vent Lengths:

Twin Pipe

Vent Sizes	2 in. (51 mm)	3 in. (76 mm)
Vent Lengths	65 ft (20 m)	150 ft (46 m)

Concentric

Vent Sizes	2 in. X 4 in.	3 in. X 5 in.
Vent Lengths	65 ft (20 m)	150 ft (46 m)

EASE OF INSTALLATION AND SERVICEABILITY

- Compact Design to Save Space
- Wi-Fi Technology for Remote Monitoring and Management
- Sliding Mounting Bracket for Easy Installation
- Simple Gas Conversion

OPTIONAL ACCESSORIES

Room Air Screen, Condensate Neutralizer, ScaleCutter, Drain Down Kit, Additional Controllers, Recess Box, Recirculation Pump, DPS/MIS Switch, EZConnect™ Cables, Cascade Cables, control-r™ Wi-Fi Module, Wireless Accessories, and many more. Visit rinnai.us for a complete list of accessories.

COMMERCIAL APPLICATIONS

Commercial Tankless Rack Systems



Demand Duo™ Commercial Hybrid System



CERTIFIED TO ANSI Z21.10.3 — CSA 4.3

SENSEI™ TECHNICAL SPECIFICATIONS

SPECIFICATION		CU199i	CU160i
Dimensions - w, h, d		18.5 in. x 26.4 in. x 11.4 in. (470 mm x 670 mm x 290 mm)	
Minimum Gas Consumption Btu/h		15,000	
Maximum Gas Consumption Btu/h		199,000	160,000
Flow Rate ¹ (Min - Max)		0.26 - 9.8 GPM (1.0 - 37 L/min)	0.26 - 8.0 GPM (1.0 - 30 L/min)
Max Flow Rate with Parameter Adjustment		11 GPM (42 L/min)	9 GPM (34 L/min)
Weight		64 lb (29 kg)	62 lb (28 kg)
Sound Level		49 dB	48 dB
Electrical	Normal	84 W	52 W
	Standby	1.3 W	
	Freeze Protection	148 W	
	Max Current	4 Amps	
	Fuse	10 Amps	
Temperature		<ul style="list-style-type: none"> Minimum: 98° F (37° C) Default Maximum: 140° F (60° C) Default 185° F (85° C) With Parameter Adjustment 	
By-Pass Flow Control		Electronic	
Gas Supply Pressure ²		<ul style="list-style-type: none"> Natural: 3.5 in. w.c. - 10.5 in. w.c. Propane: 8.0 in. w.c. - 13.5 in. w.c. 	
Ignition System		Direct Electronic Ignition	
Electronic Connections		<ul style="list-style-type: none"> Appliance: AC 120 Volts, 60Hz. Temperature Controller: DC 12 Volts (Digital) 	
Water Supply Pressure		<ul style="list-style-type: none"> Minimum: 50 PSI (Recommended 60-80 PSI for max performance) Maximum: 150 PSI 	
Controller Cable		Non-Polarized Two Core Cable (Minimum 22 AWG)	
Service Connections		<ul style="list-style-type: none"> Gas Supply: 3/4 in. (19 mm) NPT Cold Water Inlet: 3/4 in. (19 mm) NPT Hot Water Outlet: 3/4 in. (19 mm) NPT Condensate Drain: 1/2 in. (13 mm) NPT 	
Clearances		<ul style="list-style-type: none"> Top: 2 in. (51 mm)* Bottom/Ground: 12 in. (305 mm) Front: 0 in.** Back: 0 in. Sides: 2 in. (51 mm)*** Vent: 0 in. 	

* 0 in. from vent components

** Clearance for servicing is 24 in. (610 mm) in front of water heater

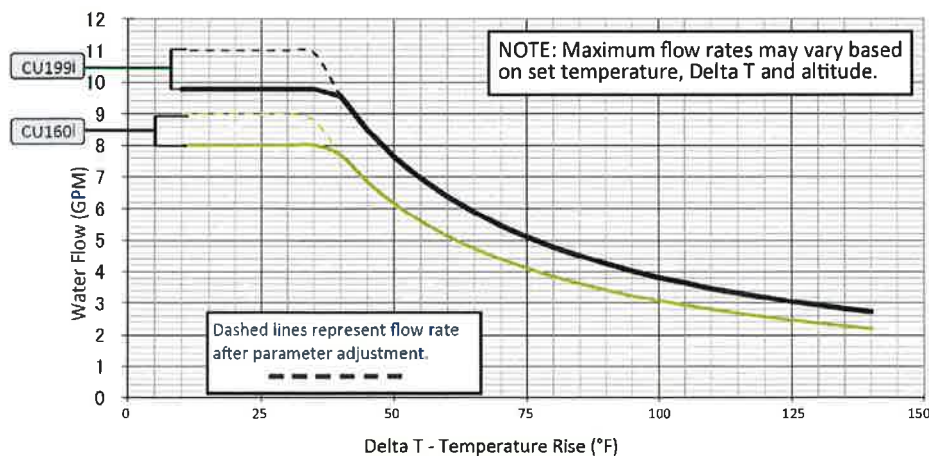
*** Add 0.25 in. (6.35 mm) for recess box

¹ Minimum flow may vary slightly depending on the temperature setting and the inlet water temperature. Minimum activation flow is 0.4 GPM (1.5 L/min).

² The maximum gas supply pressure must not exceed the value specified by the manufacturer.

SENSEI™ WATER FLOW CURVE

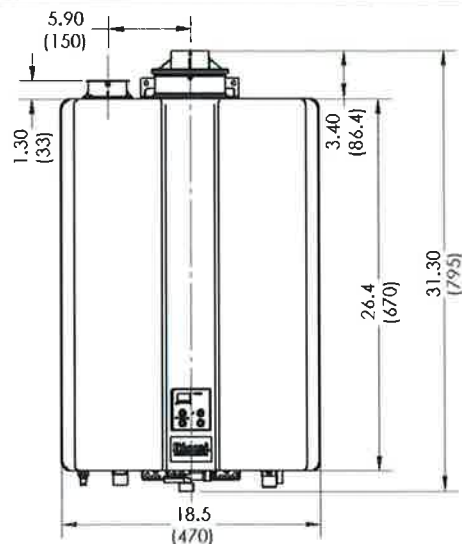
Flow curves apply only to incoming water temperatures of 70° F (21° C) or less. For incoming water temperatures greater than 70° F (21° C), please contact Rinnai.



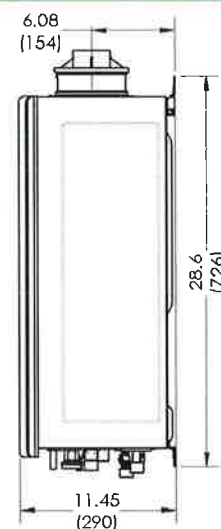
SENSEI™ DIMENSIONS

in. (mm)

FRONT



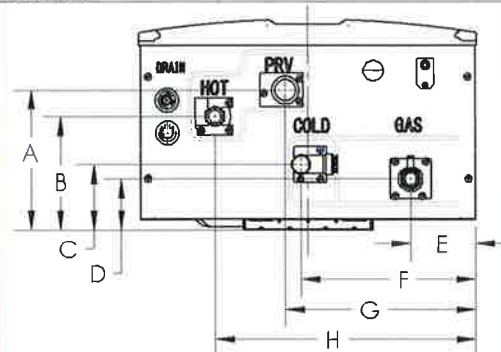
SIDE



Vent Connection:

2 in. (51 mm)
nominal PVC/
Polypropylene or
3 in./5 in.
Concentric.

BOTTOM



Connection		in.	mm
COLD	F	9.54	242
	C	3.56	90
HOT	H	14.27	362
	B	6.16	156
GAS	E	3.57	91
	D	2.78	71
PRV	G	10.39	264
	A	7.60	193



INDUSTRIES LTD.

MODEL NT25 CONDENSATE NEUTRALIZATION TANK

The NT25 is ideal for neutralizing condensate from condensing boilers and furnaces operating on natural gas or propane.

The condensate produced by these appliances is acidic and has the potential to harm the environment and the sewer system. The NT25 will neutralize the condensate to a more neutral pH level before it is discharged to drain.



FEATURES and BENEFITS

- **45 Gal/hr (170 L/hr)***
- *NeutraPro prevents acidic condensate from corroding drains and sewer systems*
- *Neutralized condensate is more environmentally friendly*
- *Two 1" NPT inlet/outlet connections with unions for fast and versatile installation*
- *Low profile design for appliances with near floor condensate drain*
- *Tank and lid made from durable and corrosion resistant Polypropylene*
- *18 liter (4.8 US gallon) tank with baffles designed to channel flow through LipHter media for complete neutralization*
- *Integral bypass feature prevents condensate backflow into appliance*
- *Includes initial charge of Axiom's special LipHter neutralizing media*

NeutraPro™

* Check with the appliance manufacturer for condensate flowrate or go to our website and use the sizing calculator. As a guideline 7,000,000 BTU/hr at 96% efficiency will produce approximately 45 Gal/hr (170 L/hr).

AXIOM INDUSTRIES LIMITED 2615 WENTZ AVENUE SASKATOON, SK S7K 5J1
TOLL FREE : (877) 651-1815 **PHONE :** (306) 651-1815 **FAX :** (306) 242-3373

www.axiomind.com



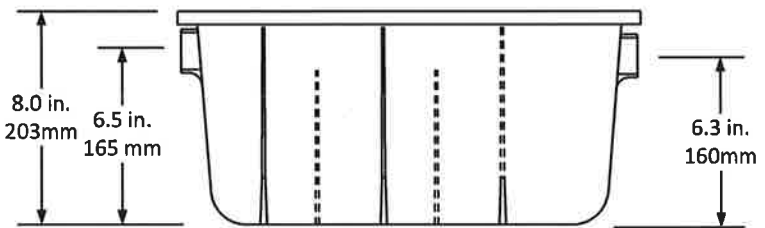
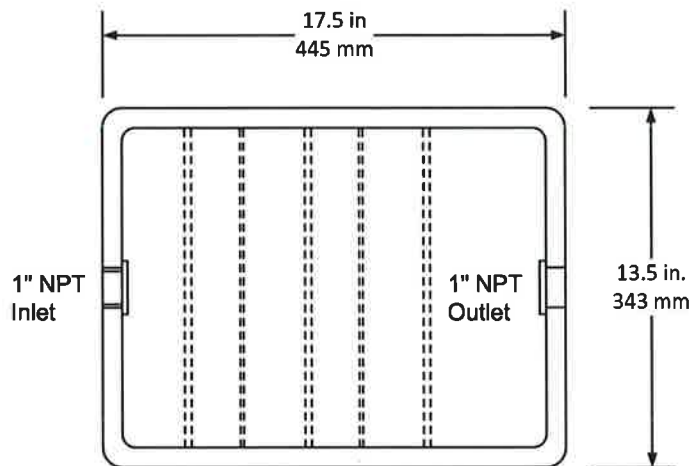
INDUSTRIES LIMITED

**NT25 CONDENSATE NEUTRALIZATION TANK
TECHNICAL INFORMATION**

WEIGHT – 20 kg, 45lbs. (full)

SPECIFICATION

The condensate neutralization tank shall be AXIOM INDUSTRIES LTD. Model NT25. System shall include 18 litre (4.8 U.S. gallon) tank and lid made from polypropylene construction with two 1" FNPT inlet/outlet connections, two 1" NPT PVC unions, and two 1" NPT PVC close nipples. Comes with 18kg (40lbs) of Axiom's *LipHter* neutralization media.



ACCESSORIES

☐ NM-25 – replacement *LipHter* neutralization media



Project _____

Location _____

Consultant _____

Contractor _____

Unit Tag _____

Sales Agent _____

EWH-1,TH-1

Large Volume Light Service Commercial Upright Electric Water Heater



Photo is of
SLE265T6

Bradford White Light Service Upright Electric Models Feature:

- **Fully Automatic Thermostat Controls**—Fast acting surface-mount thermostats with a high limit energy cut-off (manual reset) for safety.
- **Direct Heat Transfer With Immersed Elements**—Transfers heat directly and efficiently to the water. Screw-in style. INCOLOY® elements standard for all models.
- **Vitraglas® Lining with Microban®**—An exclusively engineered enamel formula that provides superior tank protection from the corrosive effects of water; and with Microban® antimicrobial product protection to help prevent the growth of bacteria, mold and mildew on the surface of the tank lining.
- **Factory-Installed Hydrojet® Total Performance System**—Sediment build-up reducing device that also increases first hour rating of hot water while minimizing temperature build-up in tank.
- **Insulation System**—2" (51mm) Non-CFC foam insulation covers the sides and top of the tank, reducing heat loss. This results in less energy consumption, improved efficiencies, and jacket rigidity.
- **Water Connections**—3/4" (19mm) NPT factory-installed true dielectric fittings extend water heater life and simplify water line connections. 1" (25mm) NPT for SLE2120T.
- **Factory-Installed Heat Traps**—Design incorporates a flexible disk that reduces heat loss in piping and eliminates the potential for noise generation.
- **Protective Anode Rod**—Provides added protection against corrosion for long-term, trouble-free service.
- **Steel Tank**—Heavy gauge steel automatically formed, rolled, and welded.
- **Wired at 277V, Single Phase, 12.2kW (6100W/6100W Simultaneous operation) only.**
- **T&P Relief Valve Installed On Top.**
- **NSF 5 kits available.**

FEATURING:



MICROBAN®



6-Year Limited Tank Warranties / 1-Year Limited Warranty on Component Parts.

For more information on warranty, please visit www.bradfordwhite.com

For products installed in USA and Puerto Rico. Some states do not allow limitations on warranties. See complete copy of the warranty included with the heater.

Microban® antimicrobial product protection helps prevent the growth of bacteria, mold and mildew that may affect the product. The built-in antimicrobial properties do not protect users or others from disease-causing organisms. Microban® is a registered trademark of Microban Products Company.

MANUFACTURED UNDER ONE OR MORE OF THE FOLLOWING U.S. PATENTS: 5,682,666; 7,634,976; 5,660,165; 5,954,492; 6,056,542; 6,935,280; 5,372,185; 5,485,879; 5,574,822; 7,971,560; 7,992,526; 6,684,821; 7,334,419; 7,866,168; 7,270,087; 7,007,748; 5,596,952; 6,142,216; 7,699,026; 5,341,770; 7,337,517; 7,665,211; 7,665,210; 7,063,132; 7,063,133; 7,559,293; 7,900,589; 5,943,984; 8,082,888; 5,988,117; 7,621,238; 7,650,859; 5,761,379; 7,409,925; 5,277,171; 8,146,772; 7,458,341; 2,262,174. OTHER U.S. AND FOREIGN PATENT APPLICATIONS PENDING. CURRENT CANADIAN PATENTS: 2,314,845; 2,504,824; 2,108,186; 2,143,031; 2,409,271; 2,548,958; 2,112,515; 2,476,685; 2,239,007; 2,092,105; 2,107,012. Vitraglas® and Hydrojet® are registered trademarks of Bradford White® Corporation. Microban® is a registered trademark of Microban Products Company.

Commercial Electric Water Heater

Large Volume (Light Service) Upright Models

Meet or exceed ASHRAE 90.1 (latest edition). C.E.C. Listed

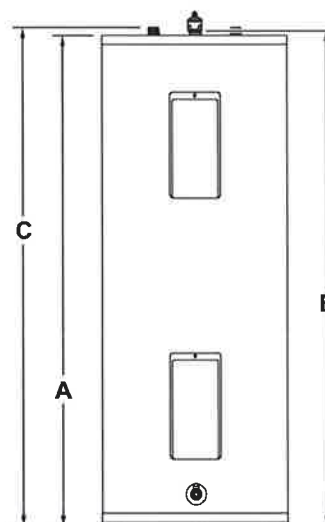
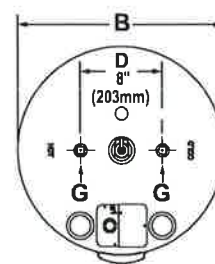
Model Number	Nominal Gal. Capacity		Recovery at 100°F Rise*		A Floor to Top of Heater	B Jacket Dia.	C Floor to Water Conn.	D C/L of Water Conn.	E Floor to T&P Conn.	G Water Conn. NPT	Approx. Shipping Weight
	U.S. Gal.	Imp. Gal.	U.S. GPH	Imp. GPH	in.	in.	in.	in.	in.	in.	lbs.
SLE265T6	65	54	50	42	60	22	61	8	61 ^{9/16}	3/4	156
SLE280T6	80	67	50	42	60	24	61	8	61 ^{9/16}	3/4	183
SLE2120T6	119	99	50	42	63	28	64 ^{13/16}	8	64 ^{9/16}	1	305

Model Number	Nominal Liter Capacity	Recovery at 56°C Rise*		A Floor to Top of Heater	B Jacket Dia.	C Floor to Water Conn.	D C/L of Water Conn.	E Floor to T&P Conn.	G Water Conn. NPT	Approx. Shipping Weight
		Liters/Hour		mm.	mm.	mm.	mm.	mm.	mm.	kg.
SLE265T6	246	189		1524	559	1549	203	1564	19	71
SLE280T6	303	189		1524	610	1549	203	1564	19	83
SLE2120T6	450	189		1600	711	1646	203	1640	25	138

* Based on 6100/6100, Simultaneous operation. Elements are triple rated for 277 Volt 6100W/6100W, 240 Volt 4500W/4500W, 208 Volt 3500W/3500W. NSF 5 Kits available when ordering. All models meet DOE's standby loss requirements.

Wattage	Recovery ▲ GPH Temperature Rise °F					Wattage	Recovery ▲ LPH Temperature Rise °C				
	60	80	90	100	120		34	45	50	56	67
12,200W	82	62	56	50	42	12,200W	310	234	212	190	158

▲ GPH based on Simultaneous operation.



General:

All models are compliant with EPart. All heaters are wired inter-locking (Simultaneous, Single Phase) 277V with two 6100W elements. All water and electrical connections are 3/4" NPT (19mm) except for SLE2120T (1" NPT (25mm)). All models certified at 300 PSI test pressure (2068 kPa) and 150 PSI working pressure (1034 kPa).

Dimensions and specifications subject to change without notice in accordance with our policy of continuous product improvement.

— BRADFORD WHITE IS —



Sales: 800-523-2931 ■ Fax 215-641-1612

24/7 Technical Support: 800-334-3393 ■ Email techserv@bradfordwhite.com

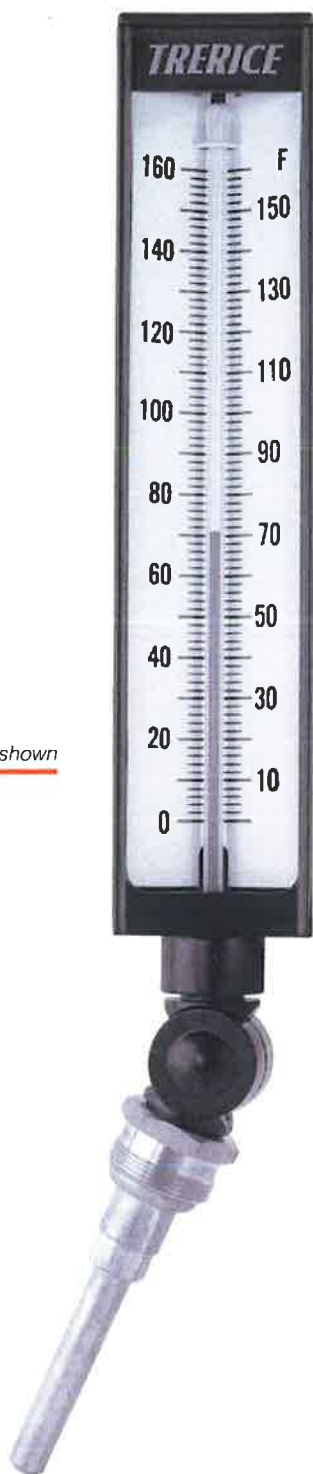
Products made by Bradford White are manufactured in the United States using the finest raw materials and components from around the world.

Built to be the Best

Adjustable Angle

7" • 9" • 12" Scale Sizes

INDUSTRIAL THERMOMETERS



BX91403 shown

- ▶ 7", 9", 12" Scale
- ▶ ± 1 Scale Division Accuracy
- ▶ Cast Aluminum Case
- ▶ Adjustable Angle Stem

Recognized globally as the Terrice "BX" Industrial Thermometer, this is an instrument of extreme accuracy and rugged dependability. Available in scale sizes of 7" (AX9), 9" (BX9), & 12" (CX9), with a durable cast aluminum case, this universally adjustable, liquid-in-glass thermometer is the most widely specified instrument of its kind.

• Optional features available! Please consult the Options & Accessories Section for details.

Thermowell

- For applications where the process media may be corrosive or contained under pressure, the use of a thermowell is required to prevent damage to the thermometer and facilitate its removal from the process. (Refer to page 158)

Specifications

Models	Scale Sizes	
AX9 BX9 CX9	7" 9" 12"	 Adjustable Angle
Fill Type	Spirit: Blue colored, organic	
Case	Cast Aluminum, blue epoxy finish	
Stem	Aluminum, brass, 304 stainless steel or air-duct style available	
Connection	Standard: 11/4-18 UNEF-2A coupling nut	
	Air-Duct: Reversible mounting flange with 3 bolt holes	
Window	Ultraviolet protective acrylic on ranges to 300° F Glass on ranges over 300° F	
Tube	Lens front, magnifying type	
Scale	Aluminum, white background with black graduations and markings	
Top Plate	ABS	
Accuracy	±1 scale division	
Approximate Shipping Weight		
AX9: 1.5 lbs [0.68 kg]		
BX9: 1.6 lbs [0.73 kg]		
CX9: 2.0 lbs [0.91 kg]		

BX91403

HOW TO ORDER

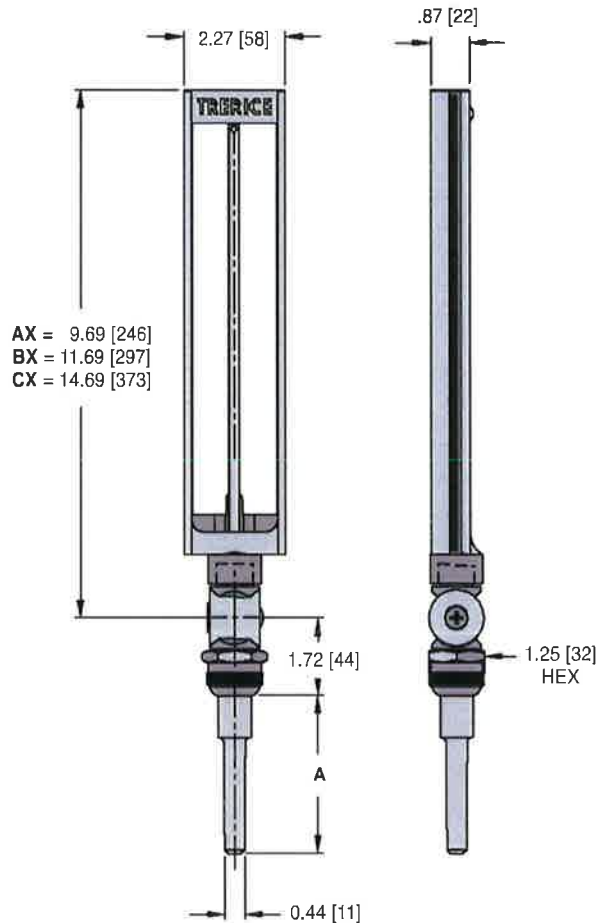
Sample Order Number: **BX9 1 403 07**

Model	Stem (Material)	Stem (Length)	Specific Range
AX9 7" Adjustable	1 Aluminum (standard)	403 31/2"	See Standard Ranges
BX9 9" Adjustable	2 Brass	406 6"	
CX9 12" Adjustable	3 304 SS	408 8"	
		512 12"	
	9 Air-Duct (Aluminum)*	006 6" Air-Duct	
		012 12" Air-Duct	

* Not for use with Thermowells

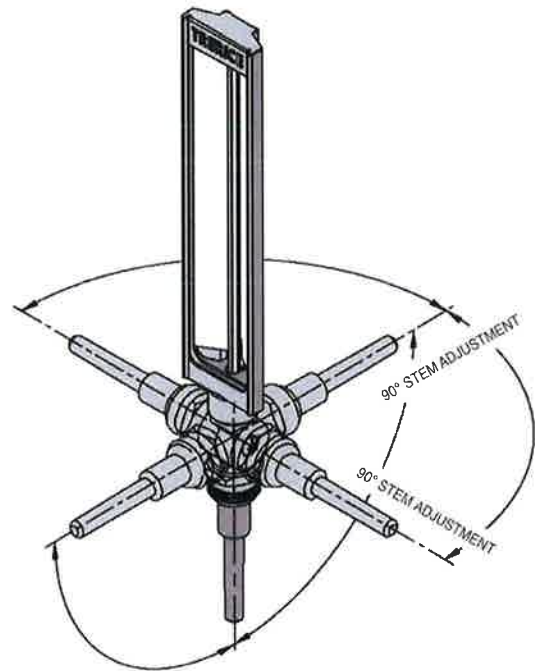
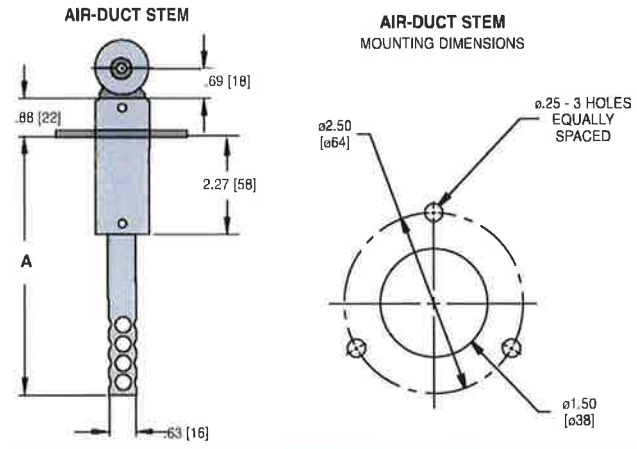
Adjustable Angle

All dimensions are nominal.
Dimensions in [] are in millimeters.



AX = 9.69 [246]
BX = 11.69 [297]
CX = 14.69 [373]

(A) Stem Length	Dimension	
3 1/2"	3.50	[88.9]
6"	6.00	[152.4]
8"	8.00	[203.2]
12"	12.00	[304.8]



Standard Ranges

Fahrenheit Scale		Celsius Scale		Dual Scale		Fahrenheit		Celsius	
Range Code	Range	Range Code	Range	Range Code	Range	Figure Intervals	Minor Divisions	Figure Intervals	Minor Divisions
01	-40° to 110°F	17	-40° to 40°C	41	-40° to 110°F & -40° to 40°C	10°	2°	5°	1°
02	0° to 100°F	24	-18° to 38°C	42	0° to 100°F & -18° to 38°C	5°	1°	5°	0.5°
03	30° to 130°F	25	0° to 55°C	43	30° to 130°F & 0° to 55°C	5°	1°	5°	1°
04	0° to 160°F	26	-18° to 70°C	44	0° to 160°F & -18° to 70°C	10°	2°	5°	1°
06	30° to 180°F	27	0° to 83°C	46	30° to 180°F & 0° to 83°C	10°	2°	5°	1°
07	30° to 240°F	19	0° to 115°C	47	30° to 240°F & 0° to 115°C	10°	2°	5°	1°
08	30° to 300°F	20	0° to 150°C	48	30° to 300°F & 0° to 150°C	10°	2°	10°	2°
09	50° to 400°F	28	10° to 205°C	49	50° to 400°F & 10° to 205°C	25°	5°	10°	2°
15	50° to 500°F	31	10° to 260°C	55	50° to 500°F & 10° to 260°C	25°	5°	10°	2°

Dual scale figure intervals may differ



ALUMINUM WATER HEATER PANS TECHNICAL SPECIFICATION

Job Name	LR West HS	Item #	34085
Location	LR		
Engineer	Ragsdale	Contractor	Comfort Systems USA
PO #		Tag	EWB-1
Representative	Sanders Supply		

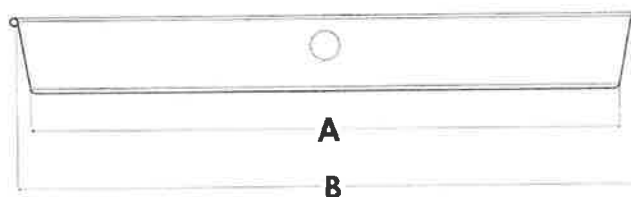
SPECIFICATIONS

Oatey Aluminum Water Heater Pans can be installed under gas or electric water heaters to protect from water damage. Available with 1" CPVC, 1" PVC, 1.5" PVC (over 1" or inside 1.5" Schedule 40 PVC pipe), 1.5" PVC (over 1" or over 1.5" Schedule 40 PVC pipe) and without fitting or without fitting hole.

DESCRIPTION

All dimensions in inches

- Manufactured from 22 gauge Aluminum.
- Pre-cut side opening accommodates drain fitting.
- Meets requirements of Southern Building Code.
- Pan depth is minimum 2-1/2".



PRODUCT SELECTOR

WATER HEATER PANS WITH 1" CPVC FITTING (FITS OVER 1" CPVC PIPE)

✓	Product Number	Description	Qty	Inside Diameter (A)	Outside Diameter (B)
	34170	18" Aluminum Water Heater Pan – Bulk	6	18	19
	34171	20" Aluminum Water Heater Pan – Bulk	6	20	21
	34172	22" Aluminum Water Heater Pan – Bulk	6	22	23
	34173	24" Aluminum Water Heater Pan – Bulk	6	24	25
	34174	26" Aluminum Water Heater Pan – Bulk	6	26	27
	34176	28" Aluminum Water Heater Pan – Bulk	6	28	29
	34175	30" Aluminum Water Heater Pan – Bulk	6	30	31
	34193	32" Aluminum Water Heater Pan	6	32	33

Data is subject to manufacturing tolerances.

Access BIM/Revit content through www.oatey.com



ALUMINUM WATER HEATER PANS TECHNICAL SPECIFICATION

PRODUCT SELECTOR

WATER HEATER PANS WITH 1" PVC FITTING (FITS OVER 1" AND INSIDE 1.5" SCHEDULE 40 PIPE)

✓	Product Number	Description	Qty	Inside Diameter (A)	Outside Diameter (B)
	34079	18" Aluminum Water Heater Pan – Bulk	6	18	19
	34151	20" Aluminum Water Heater Pan – Bulk	6	20	21
	34152	22" Aluminum Water Heater Pan – Bulk	6	22	23
	34153	24" Aluminum Water Heater Pan – Bulk	6	24	25
	34154	26" Aluminum Water Heater Pan – Bulk	6	26	27
	34156	28" Aluminum Water Heater Pan – Bulk	6	28	29
➔	34085	30" Aluminum Water Heater Pan – Bulk	6	30	31
	34191	32" Aluminum Water Heater Pan	6	32	33

WATER HEATER PANS WITH 1.5" PVC FITTING (FITS OVER 1" AND OVER 1.5" SCHEDULE 40 PIPE)

34081	20" Aluminum Water Heater Pan – Bulk	6	20	21
34082	22" Aluminum Water Heater Pan – Bulk	6	22	23
34083	24" Aluminum Water Heater Pan – Bulk	6	24	25
34084	26" Aluminum Water Heater Pan – Bulk	6	26	27
34103	28" Aluminum Water Heater Pan – Bulk	6	28	29
34107	30" Aluminum Water Heater Pan	6	29	30

WATER HEATER PANS WITHOUT FITTING & WITHOUT HOLE

34090	18" Aluminum Water Heater Pan – Bulk	6	18	19
34091	20" Aluminum Water Heater Pan – Bulk	6	20	21
34092	22" Aluminum Water Heater Pan – Bulk	6	22	23
34093	24" Aluminum Water Heater Pan – Bulk	6	24	25
34094	26" Aluminum Water Heater Pan – Bulk	6	26	27
34095	30" Aluminum Water Heater Pan – Bulk	6	30	31

WATER HEATER PAN ADAPTERS

34086	1" & 1-1/2" PVC Adapter (Fits over 1" and over 1.5" Schedule 40 pipe)	12
34088	1" & 1-1/2" PVC Adapter (Fits over 1" and inside 1.5" Schedule 40 pipe)	12
34089	1" CPVC Adapter (Fits over 1" CPVC pipe)	12

Data is subject to manufacturing tolerances.

Access BIM/Revit content through www.oatey.com

EWB-2,3,7,8,9

ElectriFLEX LD™ (Light Duty) Commercial Lowboy Electric Water Heater



Photo is of
LE120L3-3

FEATURING:



Bradford White ElectriFLEX LD™ Lowboy Electric Models Feature:

- **Applications**—Lowboy models are ideal for installations where space is minimal and are perfect for tight installations such as a closet or under a counter.
- **Fully Automatic Thermostat Controls**—Fast acting surface-mount thermostats with a maximum setpoint of 175°F (79°C) and a high limit energy cut-off (manual reset) for safety.
- **Direct Heat Transfer With Immersed Elements**—Transfers heat directly and efficiently to the water. Screw-in style.
- **Vitrage® Lining with Microban®**—An exclusively engineered enamel formula that provides superior tank protection from the corrosive effects of water; and with Microban® antimicrobial product protection to help prevent the growth of bacteria, mold and mildew on the surface of the tank lining.
- **Hydrojet® Total Performance System**—Sediment build-up reducing device that also increases first hour rating of hot water while minimizing temperature build-up in tank.
- **Insulation System**—2" (51mm) Non-CFC foam insulation covers the sides and top of the tank, reducing heat loss. This results in less energy consumption, improved efficiencies, and jacket rigidity. LE120L models additionally use a supplied flexible fiberglass insulation blanket.
- **Water Connections**—3/4" (19mm) NPT factory-installed true dielectric fittings extend water heater life and simplify water line connections.
- **Factory-Installed Heat Traps**—Design incorporates a flexible disk that reduces heat loss in piping and eliminates the potential for noise generation.
- **Protective Anode Rod**—Provides added protection against corrosion for long-term, trouble-free service.
- **Steel Tank**—Heavy gauge steel automatically formed, rolled, and welded.
- **Field Convertible**—Units are shipped from factory standard Three Phase, Non-Simultaneous and can be converted to Single Phase and/or Simultaneous operation in the field.
- **Field Conversion Kits**—Change voltage and kW in the field (see options on following page).
- **T&P Relief Valve Installed**—Side T&P is standard. Optional top T&P location is available and must be specified when ordering.



3 or 5-Year Limited Tank Warranties / 1-Year Limited Warranty on Component Parts.

For more information on warranty, please visit www.bradfordwhite.com

For products installed in USA, Canada, and Puerto Rico. Some states do not allow limitations on warranties. See complete copy of the warranty included with the heater.

Microban® antimicrobial product protection helps prevent the growth of bacteria, mold and mildew that may affect the product. The built-in antimicrobial properties do not protect users or others from disease-causing organisms. Microban® is a registered trademark of Microban Products Company.

MANUFACTURED UNDER ONE OR MORE OF THE FOLLOWING U.S. PATENTS: 5,682,666; 7,634,976; 5,660,165; 5,954,492; 6,056,542; 6,935,280; 5,372,185; 5,485,879; 5,574,822; 7,971,560; 7,992,526; 6,684,821; 7,334,419; 7,866,168; 7,270,087; 7,007,748; 5,596,952; 6,142,216; 7,699,026; 5,341,770; 7,337,517; 7,665,211; 7,665,210; 7,063,132; 7,063,133; 7,559,293; 7,900,589; 5,943,984; 8,082,888; 5,988,117; 7,621,238; 7,650,859; 5,761,379; 7,409,925; 5,277,171; 8,146,772; 7,458,341; 2,262,174. OTHER U.S. AND FOREIGN PATENT APPLICATIONS PENDING. CURRENT CANADIAN PATENTS: 2,314,845; 2,504,824; 2,108,186; 2,143,031; 2,409,271; 2,548,958; 2,112,515; 2,476,685; 2,239,007; 2,092,105; 2,107,012. Vitrage® and Hydrojet® are registered trademarks of Bradford White® Corporation. Microban® is a registered trademark of Microban Products Company.

Commercial Electric Water Heater

ElectriFLEX LD™ Lowboy Electric Models

Meet or exceed ASHRAE 90.1 (latest edition). C.E.C. Listed

Model Number	Rated Nominal Capacity		DOE Rated Storage Volume Gal.	First Hour Rating Gal.	Uniform Energy Factor	Element Wattage (Watts)		A Floor to Top of Heater	B Jacket Dia.	C Floor to Water Conn.	D C/L of Water Conn.	E Floor to T&P Conn. ††	G Water Conn. NPT	Approx. Shipping Weight
	U.S. Gal.	Imp. Gal.				Minimum	Maximum	in.	in.	in.	in.	in.	in.	lbs.
LE190LN3-3**†	19	16	—	—	—	1500	6000	24 3/4	18	25 3/4	8	19 1/4 / 24 7/8	3/4	58
LE230LN3-3	28	23	26	41	0.92	1500	6000	29 9/16	23	31 5/16	8	23 9/16 / 31 5/16	3/4	102
LE240LN3-3	37	31	34	45	0.92	1500	6000	32 1/16	24 1/2	34 5/16	8	23 9/16 / 34 5/16	3/4	126
LE250LN3-3	47	39	43	61	0.92	4000	6000	33 5/16	26	36 1/16	8	24 5/16 / 36 1/16	3/4	173

Model Number	Rated Nominal Capacity		DOE Rated Storage Volume Liters	First Hour Rating Liters	Uniform Energy Factor	Element Wattage (Watts)		A Floor to Top of Heater	B Jacket Dia.	C Floor to Water Conn.	D C/L of Water Conn.	E Floor to T&P Conn. ††	G Water Conn. NPT	Approx. Shipping Weight
	Liters	Liters				Minimum	Maximum	mm.	mm.	mm.	mm.	mm.	mm.	kg.
LE120LN3-3**†	72	—	—	—	—	1500	6000	629	457	654	203	489 / 632	19	26
LE230LN3-3	106	—	98	155	0.92	1500	6000	751	584	795	203	598 / 795	19	46
LE240LN3-3	140	—	129	171	0.92	1500	6000	814	622	872	203	598 / 872	19	57
LE250LN3-3	178	—	163	231	0.92	4000	6000	846	660	916	203	618 / 916	19	78

Specify wattage and voltage when ordering. Use chart below for maximum wattages at certain voltages. **Models include supplied insulation blanket (2" (51mm) thick). Dimensions in charts above do not include blanket thickness. For 5 year models, change suffix "3" to "5". NSF Kits available when ordering. †Exempt from ASHRAE 90.1b. Uniform Energy Factor and First Hour Rating is based on the latest AHRI directory listings. †† All models feature side or top T&P location and must specify when ordering. "E" dimension listed as side/top.

Wattage Limitations for Non-Simultaneous and Simultaneous Operation	Voltage							
	120V	208V	240V	277V	380V	415V	480V	
1500W / 1500W	yes	yes	yes	yes	yes	yes	yes	
2000W / 2000W	no	yes	yes	yes	yes	yes	yes	
2500W / 2500W	no	yes	yes	yes	yes	yes	yes	
3000W / 3000W	no	yes	yes	yes	yes	yes	yes	
3500W / 3500W	no	yes	yes	no	yes	yes	no	
4000W / 4000W	no	yes	yes	yes	yes	yes	yes	
4500W / 4500W	no	yes	yes	yes	yes	yes	yes	
5000W / 5000W	no	yes	yes	yes	yes	yes	yes	
5500W / 5500W	no	yes	yes	no	yes	yes	no	
6000W / 6000W	no	no	yes	yes	yes	yes	yes	

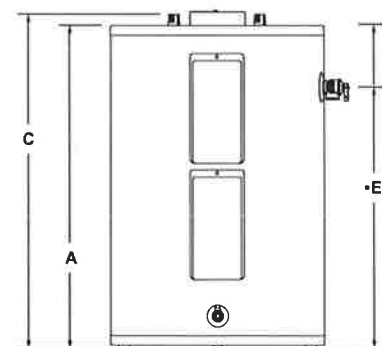
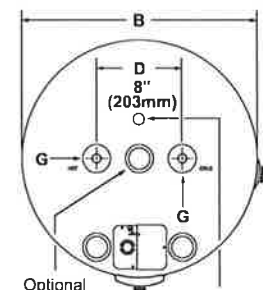
Wattage	Recovery ▲ GPH Temperature Rise °F						Wattage	Recovery ▲ LPH Temperature Rise °C					
	60	80	90	100	120			34	45	50	56	67	
1500W	10	8	7	6	5		1500W	38	30	26	23	19	
2000W	14	10	9	8	7		2000W	53	38	34	30	26	
2500W	17	13	11	10	9		2500W	64	49	42	38	34	
3000W	21	15	14	12	10		3000W	79	57	53	45	38	
3500W	24	18	16	14	12		3500W	91	68	61	53	45	
4000W	28	21	18	16	14		4000W	106	79	68	61	53	
4500W	31	23	21	18	15		4500W	117	87	79	68	57	
5000W	34	26	23	21	17		5000W	129	98	87	79	64	
5500W	38	29	25	23	19		5500W	144	110	95	87	72	
6000W	41	31	28	25	21		6000W	155	117	106	95	79	

▲(GPH based on Non-Simultaneous operation, when Simultaneous operation the GPH/LPH will approximately double.)

Voltage and Wattage Conversion Kits
Refer to Element Wattage minimum & maximum in chart above

Simultaneous and Non-Simultaneous Wattage	Voltage						
	120V	208V	240V	277V	380V	415V	480V
1500W / 1500W	415-46409-01	415-46409-05	415-46409-13	415-46409-16	415-46409-24	415-46409-41	415-46409-32
2000W / 2000W	N/A	415-46409-06	415-46409-05	415-46409-17	415-46409-43	415-46409-24	415-46409-33
2500W / 2500W	N/A	415-46409-07	415-46409-06	415-46409-18	415-46409-25	415-46409-43	415-46409-34
3000W / 3000W	N/A	415-46409-08	415-46409-14	415-46409-19	415-46409-26	415-46409-25	415-46409-35
3500W / 3500W	N/A	415-46409-09	415-46409-07	N/A	415-46409-54	415-46409-26	N/A
4000W / 4000W	N/A	415-46409-49	415-46409-08	415-46409-20	415-46409-56	415-46409-54	415-46409-36
4500W / 4500W	N/A	415-46409-11	415-46409-09	415-46409-51	415-46409-57	415-46409-55	415-46409-59
5000W / 5000W	N/A	415-46409-50	415-46409-15	415-46409-52	415-46409-58	415-46409-56	415-46409-38
5500W / 5500W	N/A	415-46409-67	415-46409-49	415-46409-61**	415-46409-63	415-46409-57	415-46409-62**
6000W / 6000W	N/A	415-46409-66*	415-46409-68	415-46409-53	415-46409-64	415-46409-58	415-46409-60

Note: Each kit will include two replacement elements, two gaskets, a rating plate overlay and one set of instructions. For water heaters with only one element, please retain the extra element and gasket as a service part. *415-46409-66 contains only one element. **INCOLOY® element only.



*"E" dimension listed as side/top.

General:

All models comply with NAECA III requirements. All models UL® listed. These heaters are wired inter-locking (Non-Simultaneous, Three Phase) 240V with two 4500W elements, unless otherwise specified. All water connections are 3/4" NPT (19mm). All electrical connections are 3/4" (19mm). All models certified at 300 PSI test pressure (2068 kPa) and 150 PSI working pressure (1034 kPa.)

Dimensions and specifications subject to change without notice in accordance with our policy of continuous product improvement.

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For Water Heater/Tank Applications

Job Name LR West HS
 Job Location LR
 Engineer Ragsdale
 Approval _____

Contractor Comfort Systems USA
 Approval _____
 Contractor's P.O. No. _____
 Representative Sanders Supply

LEAD FREE*

Model LFN36-M1

Vacuum Relief Valve

Sizes: 1/2" – 3/4" Male NPT

Features

- Low profile
- All Lead Free* brass body
- Protective cap
- Suitable for low pressure steam and water service
- Tested and rated to ANSI Z21.22
- CSA certified
- The LFN36-M1 features Lead Free* construction to comply with Lead Free* installation requirements.

Applications

- Domestic water heaters and supply tanks
- Table top heaters
- Jacketed steam kettles
- Unit heaters
- Low pressure steam systems
- Steam coil heaters

Note: Vacuum relief valves are not designed or approved as backsiphonage backflow preventers. For protection against backsiphonage install Watts Series 288A vacuum breakers.

Standards

Tested and rated to ANSI Z21.22

CSA certified

Specifications

A Watts Model LFN36-M1 Vacuum Relief Valve shall be installed on domestic hot water supply tanks/ heaters/ unit heaters/ steam kettles as indicated on plans. The vacuum relief valve shall be ANSI Z21.22 rated and CSA certified. The vacuum relief valve shall have an all brass body and include a protective cap for automatic venting of a closed system to atmosphere when a vacuum is created. The Lead Free* Vacuum Relief Valve shall comply with state codes and standards, where applicable, requiring reduced lead content. The Watts LFN36-M1 Vacuum Relief Valve permits air to enter and prevent vacuum conditions that could siphon the water from the system, resulting in collapse of a tank or water heater or equipment burn out. The valve shall be a Watts Model LFN36-M1.



LFN36-M1

Design certified by



Tested and rated under "ANSI Z21.22
Relief Valves for Hot Water Supply Systems".

LFN36-M1

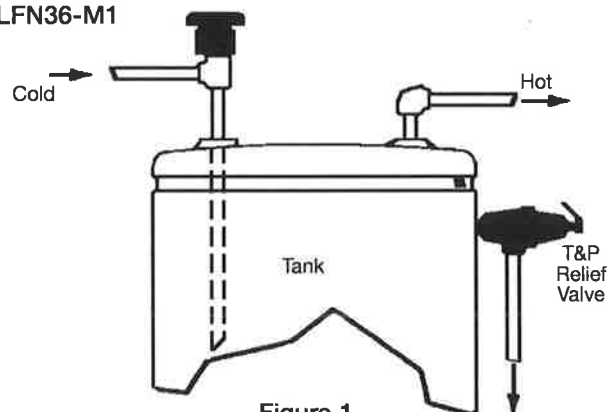


Figure 1

Domestic Hot Water Supply Tanks and Heaters
with Top Supply

NOTICE

The information contained herein is not intended to replace the full product installation and safety information available or the experience of a trained product installer. You are required to thoroughly read all installation instructions and product safety information before beginning the installation of this product.

NOTICE

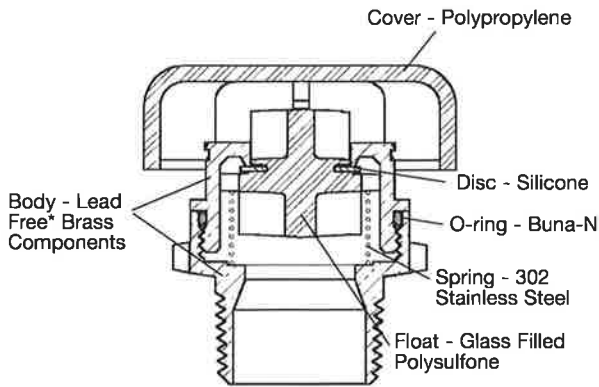
Inquire with governing authorities for local installation requirements

*The wetted surface of this product contacted by consumable water contains less than 0.25% of lead by weight.

Watts product specifications in U.S. customary units and metric are approximate and are provided for reference only. For precise measurements, please contact Watts Technical Service. Watts reserves the right to change or modify product design, construction, specifications, or materials without prior notice and without incurring any obligation to make such changes and modifications on Watts products previously or subsequently sold.

WATTS®

Materials

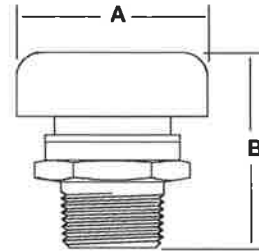


Pressure - Temperature

Maximum steam working pressure: 15 psi (1.03 bar)

Maximum temperature: 250°F (121°C)

Dimensions-Weights



SIZE	DIMENSIONS				WEIGHT	
	A		B		oz.	gr
in.	in.	mm	in.	mm		
1/2	2	50	2	50	4	113
3/4	2	50	2	50	4	113

Capacity

SIZE	MODEL	VENTING CAPACITY	
		CFM	LPM
in.			
1/2	LFN36-M1	15	425
3/4	LFN36-M1	15	425

Typical Installations

Water Service

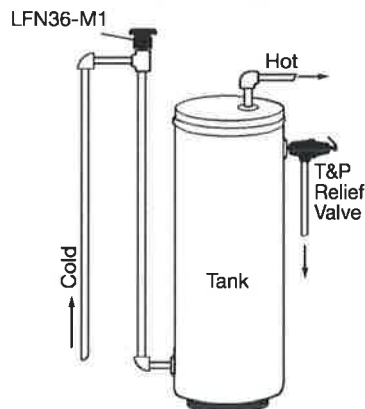


Figure 2

Domestic Hot Water Supply Tanks and Heaters with Bottom Feed

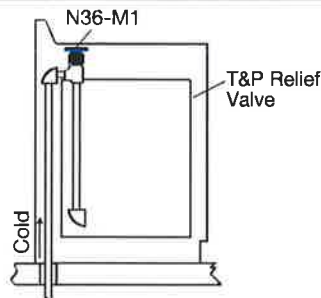


Figure 3

Table Top Heaters

Steam Service

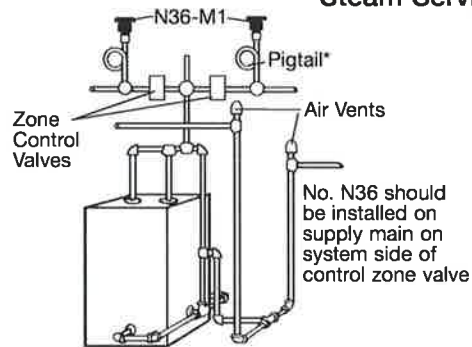


Figure 4

Low Pressure Steam Heating Systems

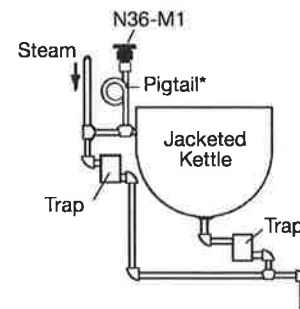


Figure 5

Jacketed Kettles

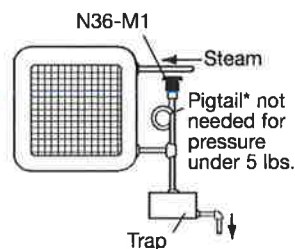


Figure 6

Unit Heaters

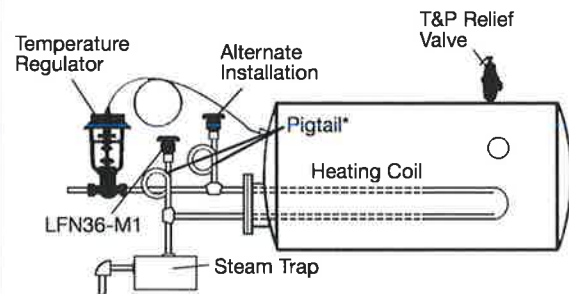


Figure 7

Steam Coil Heaters

*Note: When used for steam service, be sure to use pigtail to prevent live steam from damaging N36 valve.



USA: T: (978) 689-6066 • Watts.com

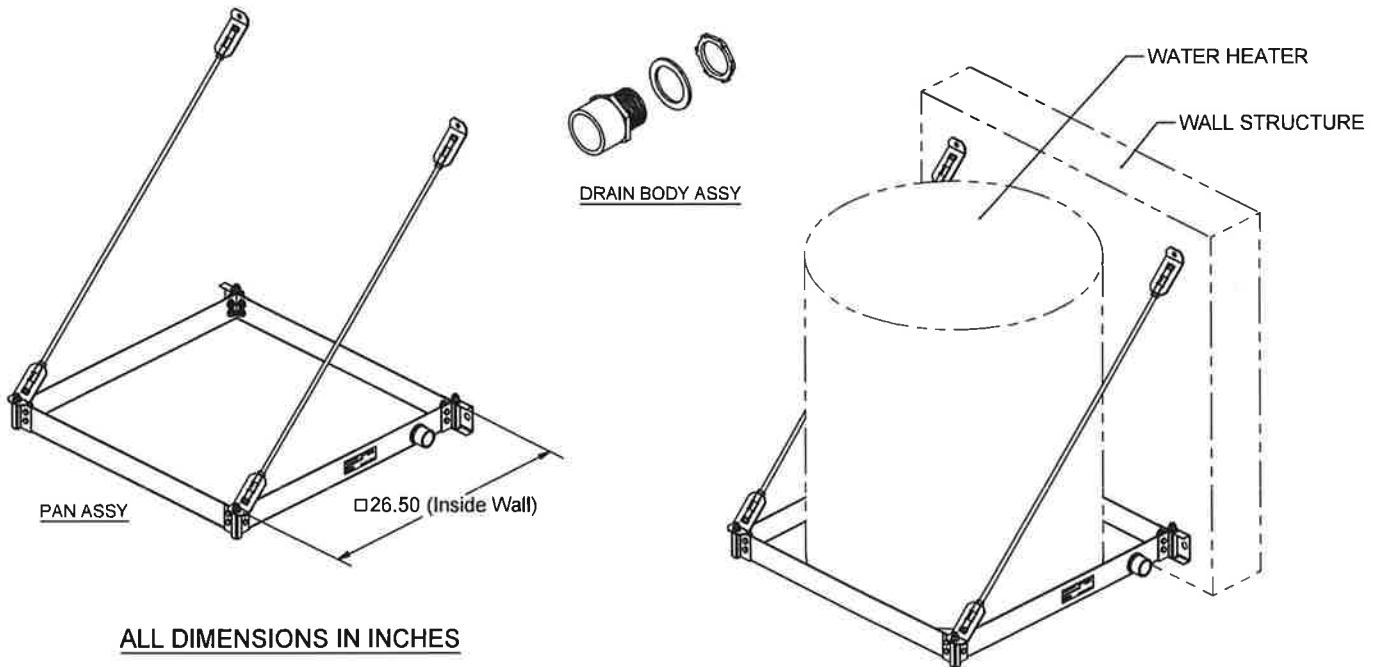
Canada: T: (905) 332-4090 • Watts.ca

Latin America: T: (52) 81-1001-8600 • Watts.com

PRODUCT SPECIFICATION DRAWING

QUICK STAND™ #50-SWHP-W

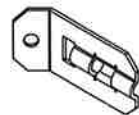
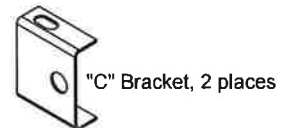
Wall Mounted Equipment Platform



The Wall Mounted Equipment Platform is engineered to support water heaters up to 50 U.S. gallons (or other equipment up to 600 pounds total weight) mounted to a wall. This item also serves as a drain pan.

Product Information:

- Material:
 - Pan: 12 gage CRS, galvanized
 - Corner Brackets (4): 14 gage CRS, galvanized
 - C-Brackets (2): 16 gage CRS, galvanized
 - 45° Brackets (4): 12 gage, CRS, galvanized
 - Threaded Rod (2): Low carbon steel, zinc plated, 3/8" x 37.10" long
- Wide platform allows water heaters up to 26-1/2" diameter
- Watertight corners and drain fittings eliminate need for additional drain pan
- Static load rating 600 pounds with 2X safety factor (depending on structural anchorage)
- Professional Engineer stamped documentation available
- Includes PVC drain body 1" MIPT x 1" FS
- Galvanized steel construction
- Suspends with user supplied 3/8" hardware to mount to wall, 4 places
- Installation instructions for mounting to concrete or framed wall structure available
- Patent Pending



Product Submittal	
Job Name:	
Date:	
Part Number:	Qty:
Architect / Owner:	
Contractor:	
Notes:	

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 "Converting Makeshift Methods into Engineered Solutions"™

EWH-4,5,TH-1

ElectriFLEX LD™ Light Duty Commercial Upright Electric Water Heater

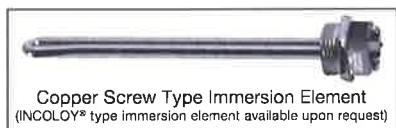


Photo is of
LE350S3-3

FEATURING:



MICROBAN®



Bradford White ElectriFLEX LD™ Upright Electric Models Feature:

- **Fully Automatic Thermostat Controls**—Fast acting surface-mount thermostats with a maximum setpoint of 175°F (79°C) and a high limit energy cut-off (manual reset) for safety.
- **Direct Heat Transfer With Immersed Elements**—Transfers heat directly and efficiently to the water. Screw-in style. INCOLOY® elements available upon request (standard on LE265T, LE280T and LE2120T).
- **Vitrage® Lining with Microban®**—An exclusively engineered enamel formula that provides superior tank protection from the corrosive effects of water; and with Microban® antimicrobial product protection to help prevent the growth of bacteria, mold and mildew on the surface of the tank lining.
- **Hydrojet® Total Performance System**—Sediment build-up reducing device that also increases first hour rating of hot water while minimizing temperature build-up in tank.
- **Insulation System**—Non-CFC foam insulation covers the sides and top of the tank, reducing heat loss. This results in less energy consumption, improved efficiencies, and jacket rigidity.
- **Water Connections**—3/4" (19mm) NPT factory-installed true dielectric fittings extend water heater life and simplify water line connections. 1" (25mm) NPT for LE2120T.
- **Factory-Installed Heat Traps**—Design incorporates a flexible disk that reduces heat loss in piping and eliminates the potential for noise generation.
- **Protective Anode Rod**—Provides added protection against corrosion for long-term, trouble-free service.
- **Steel Tank**—Heavy gauge steel automatically formed, rolled, and welded.
- **Field Convertible**—Quickly and easily convert phases and Simultaneous/ Non-Simultaneous operation.
- **Field Conversion Kits**—Change kW and/or voltage in the field (see options on following page).
- **T&P Relief Valve Installed On Top.**
- **NSF 5 kits available.**

General:

30 through 55 gallon models models comply with NAECA III requirements. 65 through 119 gallon models are compliant with EPA Act. 30 gallon (114L) through 55 gallon (208L) heaters are wired inter-locking (Non-Simultaneous, Three Phase) 240V with two 4500W elements, unless otherwise specified. 65 gallon (246L) through 119 gallon (450L) heaters are wired inter-locking (Simultaneous, Three Phase) 240V with two 6100W elements. All water and electrical connections are 3/4" NPT (19mm) except for LE2120T3-3 (1" NPT (25mm)). All models certified at 300 PSI test pressure (2068 kPa) and 150 PSI working pressure (1034 kPa.)

Dimensions and specifications subject to change without notice in accordance with our policy of continuous product improvement.

3 or 5-Year Limited Tank Warranties / 1-Year Limited Warranty on Component Parts.

For more information on warranty, please visit www.bradfordwhite.com

For products installed in USA and Puerto Rico. Some states do not allow limitations on warranties. See complete copy of the warranty included with the heater.

Microban® antimicrobial product protection helps prevent the growth of bacteria, mold and mildew that may affect the product. The built-in antimicrobial properties do not protect users or others from disease-causing organisms. Microban® is a registered trademark of Microban Products Company.



Commercial Electric Water Heater

ElectriFLEX LD™ Upright Models

Meet or exceed ASHRAE 90.1 (latest edition), C.E.C. Listed

Model Number	Rated Nominal Capacity		DOE Rated Storage Volume Gal.	First Hour Rating Gal.	Uniform Energy Factor	Element Wattage (Watts)		A Floor to Top of Heater	B Jacket Dia.	C Floor to Water Conn.	D C/L of Water Conn.	E Floor to T&P Conn.	G Water Conn. NPT	Approx. Shipping Weight
	U.S. Gal.	Imp. Gal.				Minimum	Maximum	in.	in.	in.	in.	in.	in.	lbs.
LE330S3-3	30	25	27	43	0.92	1500	6000	46 11/16	20	48 15/16	8	48 15/16	3/4	100
LE340S3-3	40	33	36	49	0.91	1500	6000	47 3/16	22	49 7/16	8	49 7/16	3/4	114
LE350S3-3	50	42	45	60	0.92	3500	6000	47 3/16	24	49 7/16	8	49 7/16	3/4	144
LE255T3-3	55	46	55	75	0.93	4500	6000	56 15/16	23	58 3/16	8	58 3/16	3/4	142
LE265T3-3	65	54	N/A	N/A	N/A	12200	12200	60	22	61	8	61 9/16	3/4	156
LE280T3-3	80	67	N/A	N/A	N/A	12200	12200	60	24	61	8	61 9/16	3/4	183
LE2120T3-3	119	99	N/A	N/A	N/A	12200	12200	63	28	64 13/16	8	64 9/16	1	305

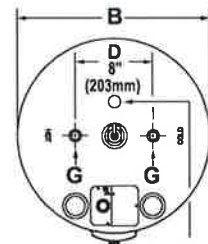
Model Number	Rated Nominal Capacity		DOE Rated Storage Volume Liters	First Hour Rating Liters	Uniform Energy Factor	Element Wattage (Watts)		A Floor to Top of Heater	B Jacket Dia.	C Floor to Water Conn.	D C/L of Water Conn.	E Floor to T&P Conn.	G Water Conn. NPT	Approx. Shipping Weight
	Liters	Liters				Minimum	Maximum	mm.	mm.	mm.	mm.	mm.	mm.	kg.
LE330S3-3	114	102	163	163	0.92	1500	6000	1186	508	1243	203	1243	19	45
LE340S3-3	151	136	186	186	0.91	1500	6000	1199	559	1256	203	1256	19	52
LE350S3-3	189	170	227	227	0.92	3500	6000	1199	610	1256	203	1256	19	65
LE255T3-3	208	208	284	284	0.93	4500	6000	1446	584	1478	203	1478	19	64
LE265T3-3	246	N/A	N/A	N/A	N/A	12200	12200	1524	559	1549	203	1564	19	71
LE280T3-3	303	N/A	N/A	N/A	N/A	12200	12200	1524	610	1549	203	1564	19	83
LE2120T3-3	450	N/A	N/A	N/A	N/A	12200	12200	1600	711	1646	203	1640	25	138

Specify wattage and voltage when ordering. Use chart below for maximum wattages at certain voltages For 5 year models, change suffix "3" to "5". NSF 5 Kits available when ordering. All models meet DOE's standby loss requirements.

LE330S3-3, LE340S3-3, LE350S3-3, LE255T3-3 Models Only

Wattage Limitations for Non-Simultaneous and Simultaneous Operation	Voltage							Wattage	Recovery ▲ GPH Temperature Rise °F					Wattage	Recovery ▲ LPH Temperature Rise °C				
	120V	208V	240V	277V	380V	415V	480V		60	80	90	100	120		34	45	50	56	67
1500W / 1500W	yes	yes	yes	yes	yes	yes	yes	1500W	10	8	7	6	5	1500W	38	30	26	23	19
2000W / 2000W	no	yes	yes	yes	yes	yes	yes	2000W	14	10	9	8	7	2000W	53	38	34	30	26
2500W / 2500W	no	yes	yes	yes	yes	yes	yes	2500W	17	13	11	10	9	2500W	64	49	42	38	34
3000W / 3000W	no	yes	yes	yes	yes	yes	yes	3000W	21	15	14	12	10	3000W	79	57	53	45	38
3500W / 3500W	no	yes	yes	yes	yes	yes	yes	3500W	24	18	16	14	12	3500W	91	68	61	53	45
4000W / 4000W	no	yes	yes	yes	yes	yes	yes	4000W	28	21	18	16	14	4000W	106	79	68	61	53
4500W / 4500W	no	yes	yes	yes	yes	yes	yes	4500W	31	23	21	18	15	4500W	117	87	79	68	57
5000W / 5000W	no	yes	yes	yes	yes	yes	yes	5000W	34	26	23	21	17	5000W	129	98	87	79	64
5500W / 5500W	no	yes	yes	yes	yes	yes	yes	5500W	38	29	25	23	19	5500W	144	110	95	87	72
6000W / 6000W	no	no	yes	yes	yes	yes	yes	6000W / 6100W	41	31	28	25	21	6000W / 6100W	155	117	106	95	79

▲(Recovery based on Non-Simultaneous operation, when Simultaneous operation the GPH/ LPH will approximately double.)



Anode Rod: LE255T Only

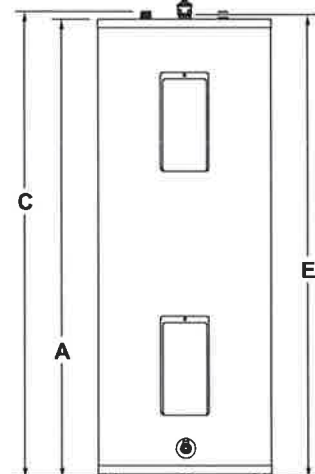
Voltage and Wattage Conversion Kits LE330S3-3, LE340S3-3, LE350S3-3, LE255T3-3 Models Only

Simultaneous and Non-Simultaneous Wattage	Voltage						
	120V	208V	240V	277V	380V	415V	480V
1500W / 1500W	415-46409-01	415-46409-05	415-46409-13	415-46409-16	415-46409-24	415-46409-41	415-46409-32
2000W / 2000W	N/A	415-46409-06	415-46409-05	415-46409-17	415-46409-43	415-46409-24	415-46409-33
2500W / 2500W	N/A	415-46409-07	415-46409-06	415-46409-18	415-46409-25	415-46409-43	415-46409-34
3000W / 3000W	N/A	415-46409-08	415-46409-14	415-46409-19	415-46409-26	415-46409-25	415-46409-35
3500W / 3500W	N/A	415-46409-09	415-46409-07	N/A	415-46409-54	415-46409-26	N/A
4000W / 4000W	N/A	415-46409-49	415-46409-08	415-46409-20	415-46409-56	415-46409-54	415-46409-36
4500W / 4500W	N/A	415-46409-11	415-46409-09	415-46409-51	415-46409-57	415-46409-55	415-46409-59
5000W / 5000W	N/A	415-46409-50	415-46409-15	415-46409-52	415-46409-58	415-46409-56	415-46409-38
5500W / 5500W	N/A	415-46409-67	415-46409-49	415-46409-61**	415-46409-63	415-46409-57	415-46409-62**
6000W / 6000W	N/A	415-46409-66*	415-46409-68	415-46409-53	415-46409-64	415-46409-58	415-46409-60

Voltage Conversion Kits LE265T, LE280T, LE2120T Models Only

Simultaneous Wattage	Voltage					
	120V	208V	240V	277V	380V	480V
6100W / 6100W	N/A	N/A	415-54506-69**	415-54506-70**	N/A	415-54506-71**

Note: Each kit will include two replacement elements, two gaskets, a rating plate overlay and one set of instructions. For water heaters with only one element, please retain the extra element and gasket as a service part. *415-46409-66 contains only one element. **INCOLOY® element only.



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For Water Heater/Tank Applications

Job Name LR West HS
 Job Location LR
 Engineer Ragsdale
 Approval _____

Contractor Comfort Systems USA
 Approval _____
 Contractor's P.O. No. _____
 Representative Sanders Supply

LEAD FREE*

Model LFN36-M1 Vacuum Relief Valve

Sizes: 1/2" – 3/4" Male NPT

Features

- Low profile
- All Lead Free* brass body
- Protective cap
- Suitable for low pressure steam and water service
- Tested and rated to ANSI Z21.22
- CSA certified
- The LFN36-M1 features Lead Free* construction to comply with Lead Free* installation requirements.

Applications

- Domestic water heaters and supply tanks
- Table top heaters
- Jacketed steam kettles
- Unit heaters
- Low pressure steam systems
- Steam coil heaters

Note: Vacuum relief valves are not designed or approved as backsiphonage backflow preventers. For protection against backsiphonage install Watts Series 288A vacuum breakers.

Standards

Tested and rated to ANSI Z21.22
 CSA certified

Specifications

A Watts Model LFN36-M1 Vacuum Relief Valve shall be installed on domestic hot water supply tanks/ heaters/ unit heaters/ steam kettles as indicated on plans. The vacuum relief valve shall be ANSI Z21.22 rated and CSA certified. The vacuum relief valve shall have an all brass body and include a protective cap for automatic venting of a closed system to atmosphere when a vacuum is created. The Lead Free* Vacuum Relief Valve shall comply with state codes and standards, where applicable, requiring reduced lead content. The Watts LFN36-M1 Vacuum Relief Valve permits air to enter and prevent vacuum conditions that could siphon the water from the system, resulting in collapse of a tank or water heater or equipment burn out. The valve shall be a Watts Model LFN36-M1.



LFN36-M1

Design certified by



Tested and rated under "ANSI Z21.22
Relief Valves for Hot Water Supply Systems".

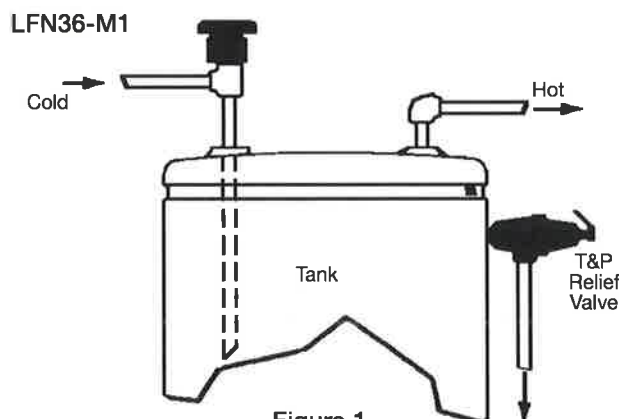


Figure 1
Domestic Hot Water Supply Tanks and Heaters
with Top Supply

NOTICE

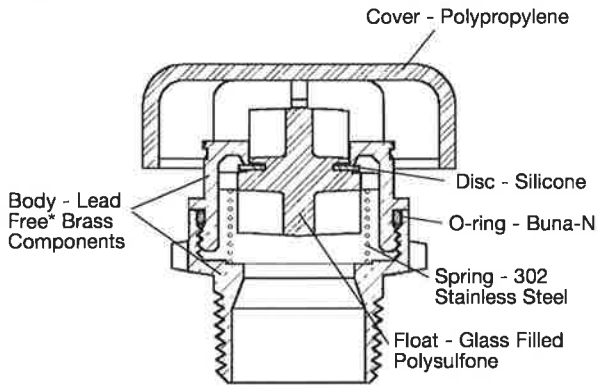
The information contained herein is not intended to replace the full product installation and safety information available or the experience of a trained product installer. You are required to thoroughly read all installation instructions and product safety information before beginning the installation of this product.

NOTICE

Inquire with governing authorities for local installation requirements

*The wetted surface of this product contacted by consumable water contains less than 0.25% of lead by weight.

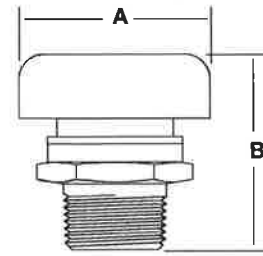
Materials



Pressure – Temperature

Maximum steam working pressure: 15 psi (1.03 bar)
Maximum temperature: 250°F (121°C)

Dimensions-Weights



SIZE	DIMENSIONS				WEIGHT	
	in.	in.	mm	in.	mm	oz.
1/2	2	50	2	50	4	113
3/4	2	50	2	50	4	113

Capacity

SIZE	MODEL	VENTING CAPACITY	
		CFM	LPM
1/2	LFN36-M1	15	425
3/4	LFN36-M1	15	425

Typical Installations

Water Service

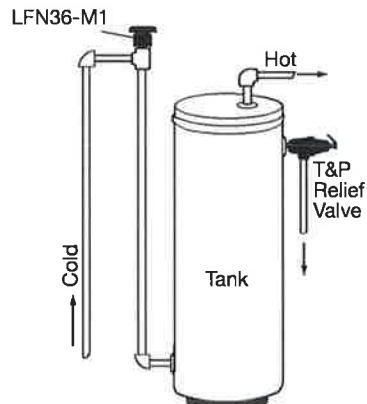


Figure 2

Domestic Hot Water Supply Tanks and Heaters with Bottom Feed

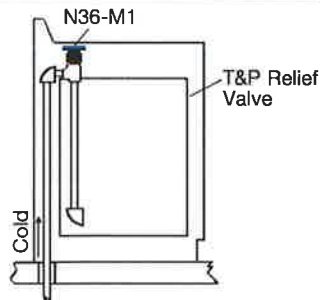


Figure 3

Table Top Heaters

Steam Service

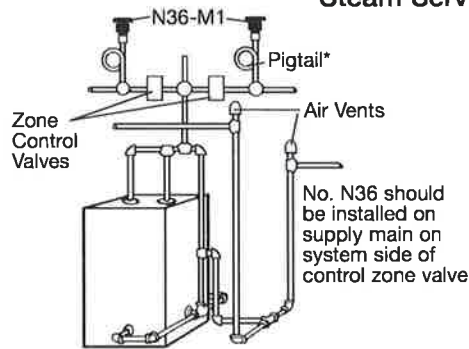


Figure 4

Low Pressure Steam Heating Systems

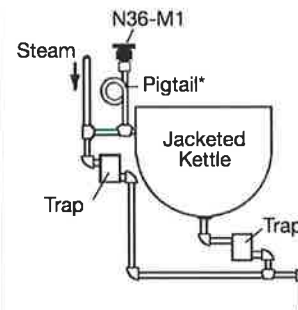


Figure 5

Jacketed Kettles

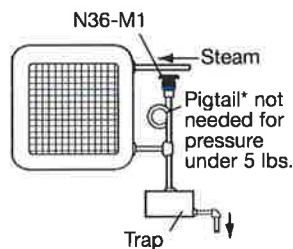


Figure 6

Unit Heaters

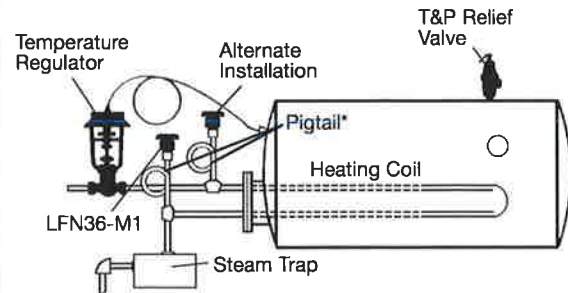


Figure 7

Steam Coil Heaters

*Note: When used for steam service, be sure to use pigtail to prevent live steam from damaging N36 valve.



Adjustable Angle

7" • 9" • 12" Scale Sizes

INDUSTRIAL THERMOMETERS



BX91403 shown

- ▶ 7", 9", 12" Scale
- ▶ ± 1 Scale Division Accuracy
- ▶ Cast Aluminum Case
- ▶ Adjustable Angle Stem

Recognized globally as the Trerice "BX" Industrial Thermometer, this is an instrument of extreme accuracy and rugged dependability. Available in scale sizes of 7" (AX9), 9" (BX9), & 12" (CX9), with a durable cast aluminum case, this universally adjustable, liquid-in-glass thermometer is the most widely specified instrument of its kind.

* Optional features available; Please consult the Options & Accessories Section for details.

Thermowell

- * For applications where the process media may be corrosive or contained under pressure, the use of a thermowell is required to prevent damage to the thermometer and facilitate its removal from the process. (Refer to page 158)

Specifications

Models	Scale Sizes	
AX9	7"	Adjustable Angle
BX9	9"	
CX9	12"	
Fill Type		Spirit: Blue colored, organic
Case		Cast Aluminum, blue epoxy finish
Stem		Aluminum, brass, 304 stainless steel or air-duct style available
Connection		Standard: 1 1/4-18 UNEF-2A coupling nut
		Air-Duct: Reversible mounting flange with 3 bolt holes
Window		Ultraviolet protective acrylic on ranges to 300° F Glass on ranges over 300° F
Tube		Lens front, magnifying type
Scale		Aluminum, white background with black graduations and markings
Top Plate		ABS
Accuracy		± 1 scale division
Approximate Shipping Weight		AX9: 1.5 lbs [0.68 kg]
		BX9: 1.6 lbs [0.73 kg]
		CX9: 2.0 lbs [0.91 kg]

BX91403

HOW TO ORDER

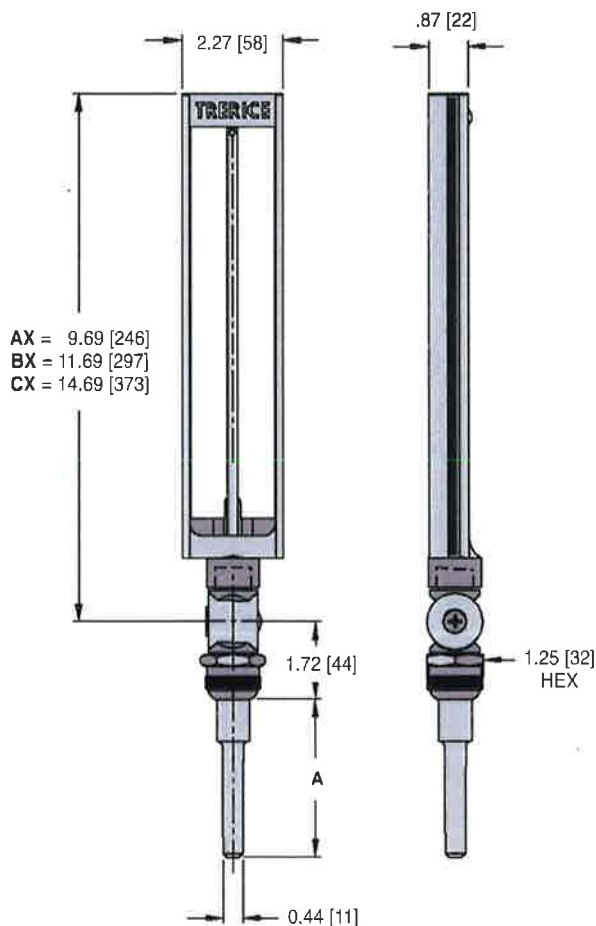
Sample Order Number: **BX9 1 403 07**

Model	Stem (Material)	Stem (Length)	Specific Range
AX9 7" Adjustable	1 Aluminum (standard)	403 3 1/2"	See Standard Ranges
BX9 9" Adjustable	2 Brass	406 6"	
CX9 12" Adjustable	3 304 SS	408 8"	
		512 12"	
	9 Air-Duct (Aluminum)*	006 6" Air-Duct	
		012 12" Air-Duct	

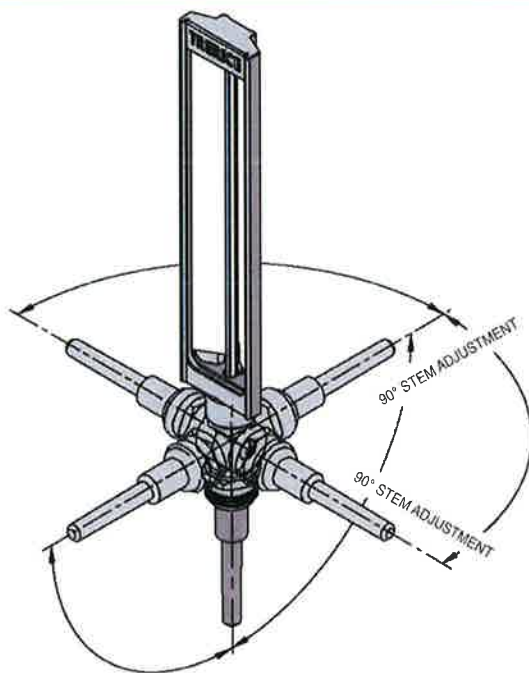
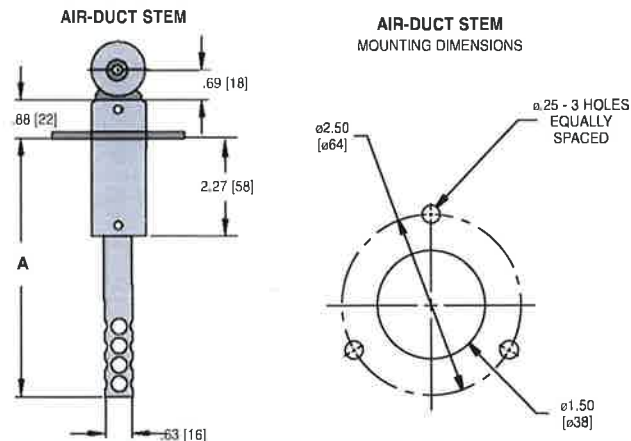
* Not for use with Thermowells

Adjustable Angle

All dimensions are nominal.
Dimensions in [] are in millimeters.



(A) Stem Length	Dimension
3 1/2"	3.50 [88.9]
6"	6.00 [152.4]
8"	8.00 [203.2]
12"	12.00 [304.8]



Standard Ranges

Fahrenheit Scale		Celsius Scale		Dual Scale		Fahrenheit		Celsius	
Range Code	Range	Range Code	Range	Range Code	Range	Figure Intervals	Minor Divisions	Figure Intervals	Minor Divisions
01	-40° to 110°F	17	-40° to 40°C	41	-40° to 110°F & -40° to 40°C	10°	2°	5°	1°
02	0° to 100°F	24	-18° to 38°C	42	0° to 100°F & -18° to 38°C	5°	1°	5°	0.5°
03	30° to 130°F	25	0° to 55°C	43	30° to 130°F & 0° to 55°C	5°	1°	5°	1°
04	0° to 160°F	26	-18° to 70°C	44	0° to 160°F & -18° to 70°C	10°	2°	5°	1°
06	30° to 180°F	27	0° to 83°C	46	30° to 180°F & 0° to 83°C	10°	2°	5°	1°
07	30° to 240°F	19	0° to 115°C	47	30° to 240°F & 0° to 115°C	10°	2°	5°	1°
08	30° to 300°F	20	0° to 150°C	48	30° to 300°F & 0° to 150°C	10°	2°	10°	2°
09	50° to 400°F	28	10° to 205°C	49	50° to 400°F & 10° to 205°C	25°	5°	10°	2°
15	50° to 500°F	31	10° to 260°C	55	50° to 500°F & 10° to 260°C	25°	5°	10°	2°

Dual scale figure intervals may differ



ALUMINUM WATER HEATER PANS TECHNICAL SPECIFICATION

Job Name	LR West HS	Item #	34084
Location	LR		
Engineer	Ragsdale	Contractor	Comfort Systems USA
PO #		Tag	EWB-4,5
Representative	Sanders Supply		

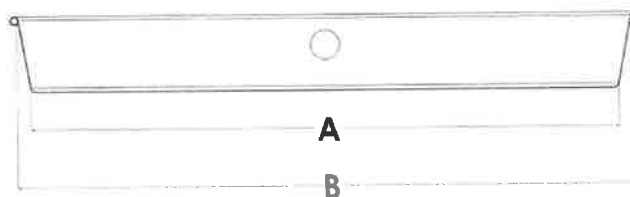
SPECIFICATIONS

Oatey Aluminum Water Heater Pans can be installed under gas or electric water heaters to protect from water damage. Available with 1" CPVC, 1" PVC, 1.5" PVC (over 1" or inside 1.5" Schedule 40 PVC pipe), 1.5" PVC (over 1" or over 1.5" Schedule 40 PVC pipe) and without fitting or without fitting hole.

DESCRIPTION

All dimensions in inches

- Manufactured from 22 gauge Aluminum.
- Pre-cut side opening accommodates drain fitting.
- Meets requirements of Southern Building Code.
- Pan depth is minimum 2-1/2".



PRODUCT SELECTOR

WATER HEATER PANS WITH 1" CPVC FITTING (FITS OVER 1" CPVC PIPE)

✓	Product Number	Description	Qty	Inside Diameter (A)	Outside Diameter (B)
	34170	18" Aluminum Water Heater Pan – Bulk	6	18	19
	34171	20" Aluminum Water Heater Pan – Bulk	6	20	21
	34172	22" Aluminum Water Heater Pan – Bulk	6	22	23
	34173	24" Aluminum Water Heater Pan – Bulk	6	24	25
	34174	26" Aluminum Water Heater Pan – Bulk	6	26	27
	34176	28" Aluminum Water Heater Pan – Bulk	6	28	29
	34175	30" Aluminum Water Heater Pan – Bulk	6	30	31
	34193	32" Aluminum Water Heater Pan	6	32	33

Data is subject to manufacturing tolerances.

Access BIM/Revit content through www.oatey.com



ALUMINUM WATER HEATER PANS TECHNICAL SPECIFICATION

PRODUCT SELECTOR

WATER HEATER PANS WITH 1" PVC FITTING (FITS OVER 1" AND INSIDE 1.5" SCHEDULE 40 PIPE)

✓	Product Number	Description	Qty	Inside Diameter (A)	Outside Diameter (B)
	34079	18" Aluminum Water Heater Pan – Bulk	6	18	19
	34151	20" Aluminum Water Heater Pan – Bulk	6	20	21
	34152	22" Aluminum Water Heater Pan – Bulk	6	22	23
	34153	24" Aluminum Water Heater Pan – Bulk	6	24	25
	34154	26" Aluminum Water Heater Pan – Bulk	6	26	27
	34156	28" Aluminum Water Heater Pan – Bulk	6	28	29
	34085	30" Aluminum Water Heater Pan – Bulk	6	30	31
	34191	32" Aluminum Water Heater Pan	6	32	33

WATER HEATER PANS WITH 1.5" PVC FITTING (FITS OVER 1" AND OVER 1.5" SCHEDULE 40 PIPE)

	34081	20" Aluminum Water Heater Pan – Bulk	6	20	21
	34082	22" Aluminum Water Heater Pan – Bulk	6	22	23
	34083	24" Aluminum Water Heater Pan – Bulk	6	24	25
➔	34084	26" Aluminum Water Heater Pan – Bulk	6	26	27
	34103	28" Aluminum Water Heater Pan – Bulk	6	28	29
	34107	30" Aluminum Water Heater Pan	6	29	30

WATER HEATER PANS WITHOUT FITTING & WITHOUT HOLE

	34090	18" Aluminum Water Heater Pan – Bulk	6	18	19
	34091	20" Aluminum Water Heater Pan – Bulk	6	20	21
	34092	22" Aluminum Water Heater Pan – Bulk	6	22	23
	34093	24" Aluminum Water Heater Pan – Bulk	6	24	25
	34094	26" Aluminum Water Heater Pan – Bulk	6	26	27
	34095	30" Aluminum Water Heater Pan – Bulk	6	30	31

WATER HEATER PAN ADAPTERS

	34086	1" & 1-1/2" PVC Adapter (Fits over 1" and over 1.5" Schedule 40 pipe)	12
	34088	1" & 1-1/2" PVC Adapter (Fits over 1" and inside 1.5" Schedule 40 pipe)	12
	34089	1" CPVC Adapter (Fits over 1" CPVC pipe)	12

Data is subject to manufacturing tolerances.

Access BIM/Revit content through www.oatey.com

EWH-6,TH-1

ElectriFLEX LD™ Light Duty Commercial Upright Electric Water Heater



Photo is of
LE350S3-3

FEATURING:



Bradford White ElectriFLEX LD™ Upright Electric Models Feature:

- **Fully Automatic Thermostat Controls**—Fast acting surface-mount thermostats with a maximum setpoint of 175°F (79°C) and a high limit energy cut-off (manual reset) for safety.
- **Direct Heat Transfer With Immersed Elements**—Transfers heat directly and efficiently to the water. Screw-in style. INCOLOY® elements available upon request (standard on LE265T, LE280T and LE2120T).
- **Vitraglas® Lining with Microban®**—An exclusively engineered enamel formula that provides superior tank protection from the corrosive effects of water; and with Microban® antimicrobial product protection to help prevent the growth of bacteria, mold and mildew on the surface of the tank lining.
- **Hydrojet® Total Performance System**—Sediment build-up reducing device that also increases first hour rating of hot water while minimizing temperature build-up in tank.
- **Insulation System**—Non-CFC foam insulation covers the sides and top of the tank, reducing heat loss. This results in less energy consumption, improved efficiencies, and jacket rigidity.
- **Water Connections**—3/4" (19mm) NPT factory-installed true dielectric fittings extend water heater life and simplify water line connections. 1" (25mm) NPT for LE2120T.
- **Factory-Installed Heat Traps**—Design incorporates a flexible disk that reduces heat loss in piping and eliminates the potential for noise generation.
- **Protective Anode Rod**—Provides added protection against corrosion for long-term, trouble-free service.
- **Steel Tank**—Heavy gauge steel automatically formed, rolled, and welded.
- **Field Convertible**—Quickly and easily convert phases and Simultaneous/Non-Simultaneous operation.
- **Field Conversion Kits**—Change kW and/or voltage in the field (see options on following page).
- **T&P Relief Valve Installed On Top.**
- **NSF 5 kits available.**

General:

30 through 55 gallon models models comply with NAECA III requirements. 65 through 119 gallon models are compliant with EPart. 30 gallon (114L) through 55 gallon (208L) heaters are wired inter-locking (Non-Simultaneous, Three Phase) 240V with two 4500W elements, unless otherwise specified. 65 gallon (246L) through 119 gallon (450L) heaters are wired inter-locking (Simultaneous, Three Phase) 240V with two 6100W elements. All water and electrical connections are 3/4" NPT (19mm) except for LE2120T3-3 (1" NPT (25mm)). All models certified at 300 PSI test pressure (2068 kPa) and 150 PSI working pressure (1034 kPa.)

Dimensions and specifications subject to change without notice in accordance with our policy of continuous product improvement.

3 or 5-Year Limited Tank Warranties / 1-Year Limited Warranty on Component Parts.

For more information on warranty, please visit www.bradfordwhite.com

For products installed in USA and Puerto Rico. Some states do not allow limitations on warranties. See complete copy of the warranty included with the heater.

Microban® antimicrobial product protection helps prevent the growth of bacteria, mold and mildew that may affect the product. The built-in antimicrobial properties do not protect users or others from disease-causing organisms. Microban® is a registered trademark of Microban Products Company.



Commercial Electric Water Heater

ElectriFLEX LD™ Upright Models

Meet or exceed ASHRAE 90.1 (latest edition), C.E.C. Listed

Model Number	Rated Nominal Capacity		DOE Rated Storage Volume	First Hour Rating	Uniform Energy Factor	Element Wattage (Watts)		A Floor to Top of Heater	B Jacket Dia.	C Floor to Water Conn.	D C/L of Water Conn.	E Floor to T&P Conn.	G Water Conn. NPT	Approx. Shipping Weight
	U.S. Gal.	Imp. Gal.				Gal.	Gal.							
LE330S3-3	30	25	27	43	0.92	1500	6000	46 ¹¹ / ₁₆	20	48 ¹⁵ / ₁₆	8	48 ¹⁵ / ₁₆	¾	100
LE340S3-3	40	33	36	49	0.91	1500	6000	47 ³ / ₁₆	22	49 ⁷ / ₁₆	8	49 ⁷ / ₁₆	¾	114
LE350S3-3	50	42	45	60	0.92	3500	6000	47 ³ / ₁₆	24	49 ⁷ / ₁₆	8	49 ⁷ / ₁₆	¾	144
LE255T3-3	55	46	55	75	0.93	4500	6000	56 ¹⁵ / ₁₆	23	58 ⁷ / ₁₆	8	58 ³ / ₁₆	¾	142
LE265T3-3	65	54	N/A	N/A	N/A	12200	12200	60	22	61	8	61 ⁹ / ₁₆	¾	156
LE280T3-3	80	67	N/A	N/A	N/A	12200	12200	60	24	61	8	61 ⁹ / ₁₆	¾	183
LE2120T3-3	119	99	N/A	N/A	N/A	12200	12200	63	28	64 ¹³ / ₁₆	8	64 ⁹ / ₁₆	1	305

Model Number	Rated Nominal Capacity	DOE Rated Storage Volume	First Hour Rating	Uniform Energy Factor	Element Wattage (Watts)		A Floor to Top of Heater	B Jacket Dia.	C Floor to Water Conn.	D C/L of Water Conn.	E Floor to T&P Conn.	G Water Conn. NPT	Approx. Shipping Weight
	Liters	Liters	Liters		Minimum	Maximum	mm.	mm.	mm.	mm.	mm.	mm.	kg.
LE330S3-3	114	102	163	0.92	1500	6000	1186	508	1243	203	1243	19	45
LE340S3-3	151	136	186	0.91	1500	6000	1199	559	1256	203	1256	19	52
LE350S3-3	189	170	227	0.92	3500	6000	1199	610	1256	203	1256	19	65
LE255T3-3	208	208	284	0.93	4500	6000	1446	584	1478	203	1478	19	64
LE265T3-3	246	N/A	N/A	N/A	12200	12200	1524	559	1549	203	1564	19	71
LE280T3-3	303	N/A	N/A	N/A	12200	12200	1524	610	1549	203	1564	19	83
LE2120T3-3	450	N/A	N/A	N/A	12200	12200	1600	711	1646	203	1640	25	138

Specify wattage and voltage when ordering. Use chart below for maximum wattages at certain voltages For 5 year models, change suffix "3" to "5". NSF 5 Kits available when ordering. All models meet DOE's standby loss requirements.

LE330S3-3, LE340S3-3, LE350S3-3, LE255T3-3 Models Only

Wattage Limitations for Non-Simultaneous and Simultaneous Operation	120V	208V	240V	277V	380V	415V	480V	Wattage	Recovery ▲ GPH Temperature Rise °F	Wattage	Recovery ▲ LPH Temperature Rise °C
									60 80 90 100 120		34 45 50 56 67
1500W / 1500W	yes	yes	yes	yes	yes	yes	yes	1500W	10 8 7 6 5	1500W	38 30 26 23 19
2000W / 2000W	no	yes	yes	yes	yes	yes	yes	2000W	14 10 9 8 7	2000W	53 38 34 30 26
2500W / 2500W	no	yes	yes	yes	yes	yes	yes	2500W	17 13 11 10 9	2500W	64 49 42 38 34
3000W / 3000W	no	yes	yes	yes	yes	yes	yes	3000W	21 15 14 12 10	3000W	79 57 53 45 38
3500W / 3500W	no	yes	yes	yes	yes	yes	yes	3500W	24 18 16 14 12	3500W	91 68 61 53 45
4000W / 4000W	no	yes	yes	no	yes	yes	no	4000W	28 21 18 16 14	4000W	106 79 68 61 53
4500W / 4500W	no	yes	yes	yes	yes	yes	yes	4500W	31 23 21 18 15	4500W	117 87 79 68 57
5000W / 5000W	no	yes	yes	yes	yes	yes	yes	5000W	34 26 23 21 17	5000W	129 98 87 79 64
5500W / 5500W	no	yes	yes	yes	yes	yes	yes	5500W	38 29 25 23 19	5500W	144 110 95 87 72
6000W / 6000W	no	no	yes	yes	yes	yes	no	6000W / 6100W	41 31 28 25 21	6000W / 6100W	155 117 106 95 79

▲(Recovery based on Non-Simultaneous operation, when Simultaneous operation the GPH/ LPH will approximately double.)

Voltage and Wattage Conversion Kits LE330S3-3, LE340S3-3, LE350S3-3, LE255T3-3 Models Only

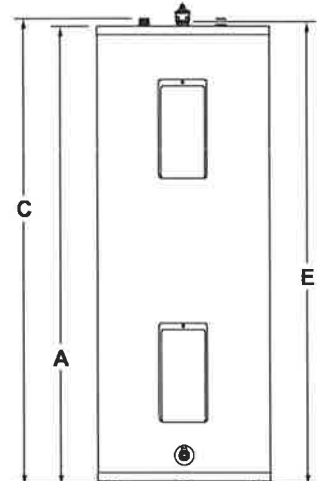
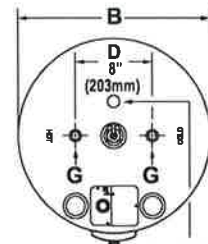
Refer to Element Wattage minimum & maximum in chart above

Simultaneous and Non-Simultaneous Wattage	120V	208V	240V	277V	380V	415V	480V
1500W / 1500W	415-46409-01	415-46409-05	415-46409-13	415-46409-16	415-46409-24	415-46409-41	415-46409-32
2000W / 2000W	N/A	415-46409-06	415-46409-05	415-46409-17	415-46409-43	415-46409-24	415-46409-33
2500W / 2500W	N/A	415-46409-07	415-46409-06	415-46409-18	415-46409-25	415-46409-43	415-46409-34
3000W / 3000W	N/A	415-46409-08	415-46409-14	415-46409-19	415-46409-26	415-46409-25	415-46409-35
3500W / 3500W	N/A	415-46409-09	415-46409-07	N/A	415-46409-54	415-46409-26	N/A
4000W / 4000W	N/A	415-46409-49	415-46409-08	415-46409-20	415-46409-56	415-46409-54	415-46409-36
4500W / 4500W	N/A	415-46409-11	415-46409-09	415-46409-51	415-46409-57	415-46409-55	415-46409-59
5000W / 5000W	N/A	415-46409-50	415-46409-15	415-46409-52	415-46409-58	415-46409-56	415-46409-38
5500W / 5500W	N/A	415-46409-67	415-46409-49	415-46409-61**	415-46409-63	415-46409-57	415-46409-62**
6000W / 6000W	N/A	415-46409-66*	415-46409-68	415-46409-53	415-46409-64		

Voltage Conversion Kits LE265T, LE280T, LE2120T Models Only

Simultaneous Wattage	120V	208V	240V	277V	380V	415V	480V
6100W / 6100W	N/A	N/A	415-54506-69**	415-54506-70**	N/A	N/A	415-54506-71**

Note: Each kit will include two replacement elements, two gaskets, a rating plate overlay and one set of instructions. For water heaters with only one element, please retain the extra element and gasket as a service part. *415-46409-66 contains only one element. **INCOLOY® element only.



— BRADFORD WHITE IS —

AMERICAN STRONG.

Sales: 800-523-2931 ■ Fax 215-641-1612

24/7 Technical Support: 800-334-3393 ■ Email techserv@bradfordwhite.com

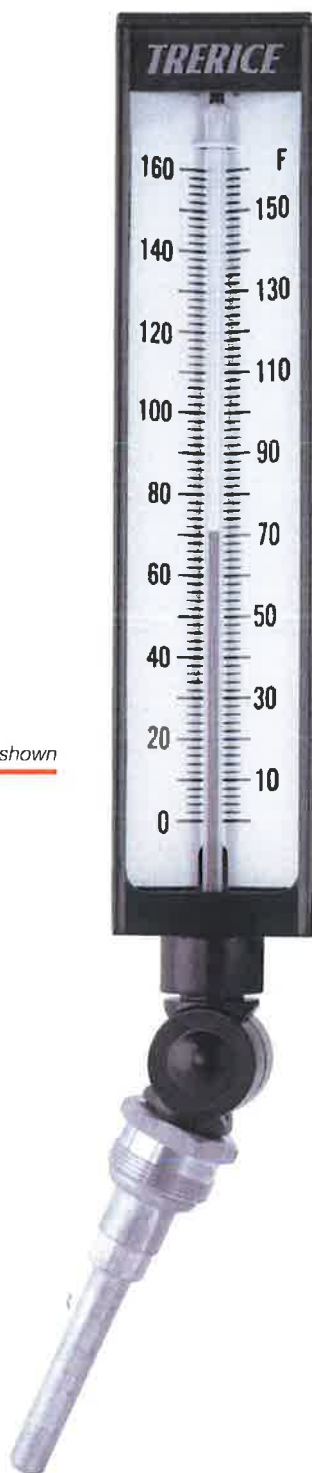
Products made by Bradford White are manufactured in the United States using the finest raw materials and components from around the world.

Built to be the Best

Adjustable Angle

7" • 9" • 12" Scale Sizes

INDUSTRIAL THERMOMETERS



BX91403 shown

- ▶ 7", 9", 12" Scale
- ▶ ± 1 Scale Division Accuracy
- ▶ Cast Aluminum Case
- ▶ Adjustable Angle Stem

Recognized globally as the Trerice "BX" Industrial Thermometer, this is an instrument of extreme accuracy and rugged dependability. Available in scale sizes of 7" (AX9), 9" (BX9), & 12" (CX9), with a durable cast aluminum case, this universally adjustable, liquid-in-glass thermometer is the most widely specified instrument of its kind.

* Optional features available:
Please consult the Options & Accessories Section for details.

Thermowell

- * For applications where the process media may be corrosive or contained under pressure, the use of a thermowell is required to prevent damage to the thermometer and facilitate its removal from the process. (Refer to page 158)

Specifications

Models	Scale Sizes	
AX9 BX9 CX9	7" 9" 12"	Adjustable Angle
Fill Type	Spirit: Blue colored, organic	
Case	Cast Aluminum, blue epoxy finish	
Stem	Aluminum, brass, 304 stainless steel or air-duct style available	
Connection	Standard: 1 1/4-18 UNEF-2A coupling nut Air-Duct: Reversible mounting flange with 3 bolt holes	
Window	Ultraviolet protective acrylic on ranges to 300° F Glass on ranges over 300° F	
Tube	Lens front, magnifying type	
Scale	Aluminum, white background with black graduations and markings	
Top Plate	ABS	
Accuracy	±1 scale division	
Approximate Shipping Weight	AX9: 1.5 lbs [0.68 kg] BX9: 1.6 lbs [0.73 kg] CX9: 2.0 lbs [0.91 kg]	

BX91403

HOW TO ORDER

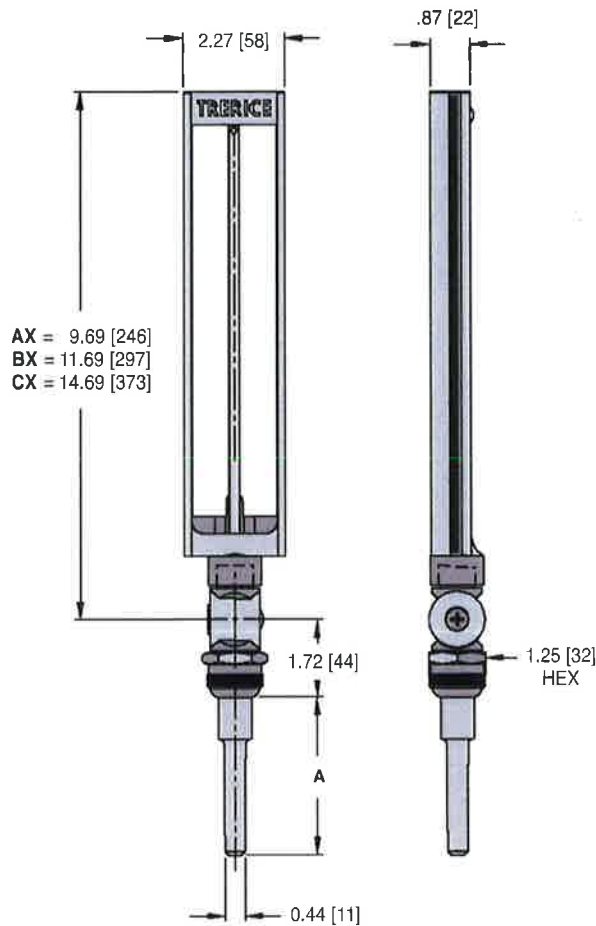
Sample Order Number: **BX9 1 403 07**

Model	Stem (Material)	Stem (Length)	Specific Range
AX9 7" Adjustable	1 Aluminum (standard)	403 3 1/2"	See Standard Ranges
BX9 9" Adjustable	2 Brass	406 6"	
CX9 12" Adjustable	3 304 SS	408 8"	
		512 12"	
	9 Air-Duct (Aluminum)*	006 6" Air-Duct	
		012 12" Air-Duct	

* Not for use with Thermowells

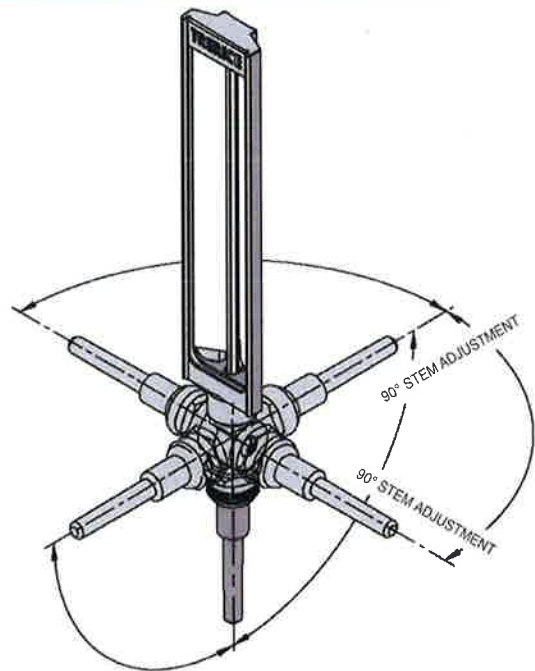
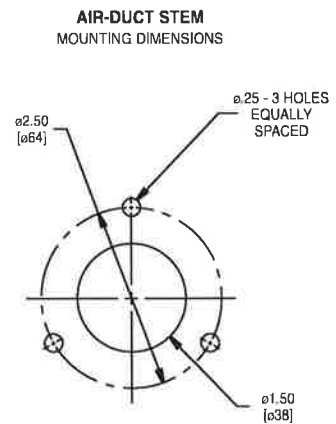
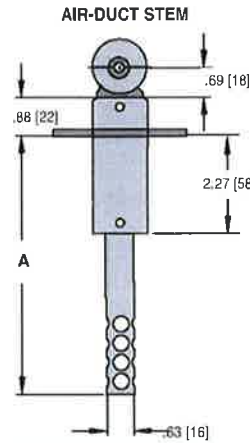
Adjustable Angle

All dimensions are nominal.
Dimensions in [] are in millimeters.



AX = 9.69 [246]
BX = 11.69 [297]
CX = 14.69 [373]

(A) Stem Length	Dimension
3 1/2"	3.50 [88.9]
6"	6.00 [152.4]
8"	8.00 [203.2]
12"	12.00 [304.8]



Standard Ranges

Fahrenheit Scale		Celsius Scale		Dual Scale		Fahrenheit		Celsius	
Range Code	Range	Range Code	Range	Range Code	Range	Figure Intervals	Minor Divisions	Figure Intervals	Minor Divisions
01	-40° to 110°F	17	-40° to 40°C	41	-40° to 110°F & -40° to 40°C	10°	2°	5°	1°
02	0° to 100°F	24	-18° to 38°C	42	0° to 100°F & -18° to 38°C	5°	1°	5°	0.5°
03	30° to 130°F	25	0° to 55°C	43	30° to 130°F & 0° to 55°C	5°	1°	5°	1°
04	0° to 160°F	26	-18° to 70°C	44	0° to 160°F & -18° to 70°C	10°	2°	5°	1°
06	30° to 180°F	27	0° to 83°C	46	30° to 180°F & 0° to 83°C	10°	2°	5°	1°
07	30° to 240°F	19	0° to 115°C	47	30° to 240°F & 0° to 115°C	10°	2°	5°	1°
08	30° to 300°F	20	0° to 150°C	48	30° to 300°F & 0° to 150°C	10°	2°	10°	2°
09	50° to 400°F	28	10° to 205°C	49	50° to 400°F & 10° to 205°C	25°	5°	10°	2°
15	50° to 500°F	31	10° to 260°C	55	50° to 500°F & 10° to 260°C	25°	5°	10°	2°

Dual scale figure intervals may differ

For Water Heater/Tank Applications

Job Name LR West HS
 Job Location LR
 Engineer Ragsdale
 Approval _____

Contractor Comfort Systems USA
 Approval _____
 Contractor's P.O. No. _____
 Representative Sanders Supply

LEAD FREE*

Model LFN36-M1 Vacuum Relief Valve

Sizes: 1/2" – 3/4" Male NPT

Features

- Low profile
- All Lead Free* brass body
- Protective cap
- Suitable for low pressure steam and water service
- Tested and rated to ANSI Z21.22
- CSA certified
- The LFN36-M1 features Lead Free* construction to comply with Lead Free* installation requirements.

Applications

- Domestic water heaters and supply tanks
- Table top heaters
- Jacketed steam kettles
- Unit heaters
- Low pressure steam systems
- Steam coil heaters

Note: Vacuum relief valves are not designed or approved as backsiphonage backflow preventers. For protection against backsiphonage install Watts Series 288A vacuum breakers.

Standards

Tested and rated to ANSI Z21.22
 CSA certified

Specifications

A Watts Model LFN36-M1 Vacuum Relief Valve shall be installed on domestic hot water supply tanks/ heaters/ unit heaters/ steam kettles as indicated on plans. The vacuum relief valve shall be ANSI Z21.22 rated and CSA certified. The vacuum relief valve shall have an all brass body and include a protective cap for automatic venting of a closed system to atmosphere when a vacuum is created. The Lead Free* Vacuum Relief Valve shall comply with state codes and standards, where applicable, requiring reduced lead content. The Watts LFN36-M1 Vacuum Relief Valve permits air to enter and prevent vacuum conditions that could siphon the water from the system, resulting in collapse of a tank or water heater or equipment burn out. The valve shall be a Watts Model LFN36-M1.



LFN36-M1

Design certified by



Tested and rated under "ANSI Z21.22
Relief Valves for Hot Water Supply Systems".

LFN36-M1

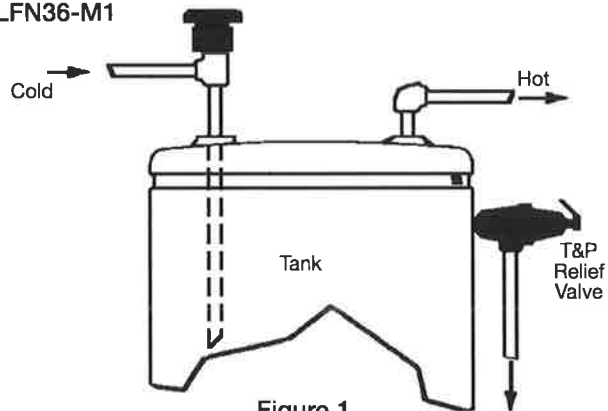


Figure 1

Domestic Hot Water Supply Tanks and Heaters
with Top Supply

NOTICE

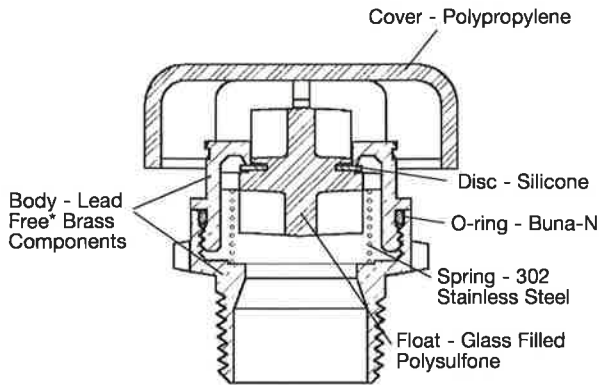
The information contained herein is not intended to replace the full product installation and safety information available or the experience of a trained product installer. You are required to thoroughly read all installation instructions and product safety information before beginning the installation of this product.

NOTICE

Inquire with governing authorities for local installation requirements

*The wetted surface of this product contacted by consumable water contains less than 0.25% of lead by weight.

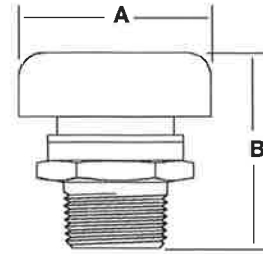
Materials



Pressure - Temperature

Maximum steam working pressure: 15 psi (1.03 bar)
Maximum temperature: 250°F (121°C)

Dimensions-Weights



SIZE	DIMENSIONS				WEIGHT	
	A		B		oz.	gr
in.	in.	mm	in.	mm		
1/2	2	50	2	50	4	113
3/4	2	50	2	50	4	113

Capacity

SIZE	MODEL	VENTING CAPACITY	
		CFM	LPM
in.			
1/2	LFN36-M1	15	425
3/4	LFN36-M1	15	425

Typical Installations

Water Service

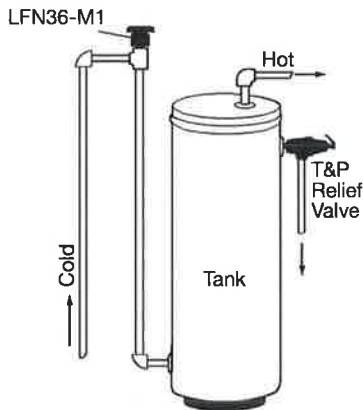


Figure 2

Domestic Hot Water Supply Tanks and Heaters with Bottom Feed

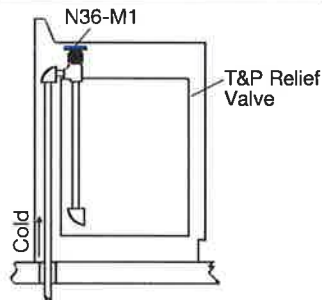


Figure 3

Table Top Heaters

Steam Service

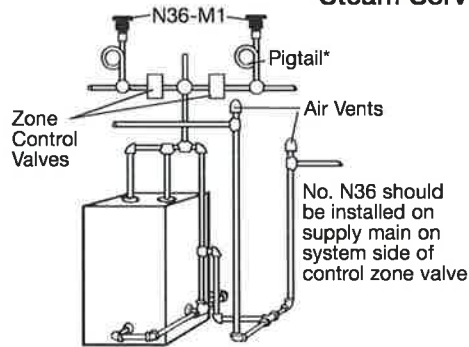


Figure 4

Low Pressure Steam Heating Systems

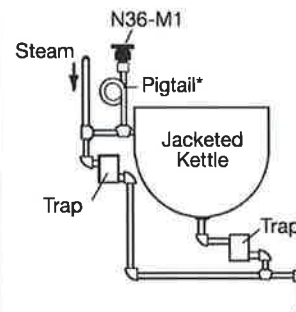


Figure 5

Jacketed Kettles

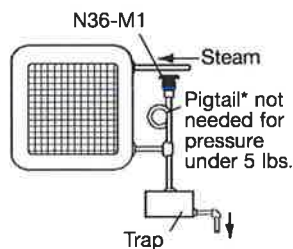


Figure 6

Unit Heaters

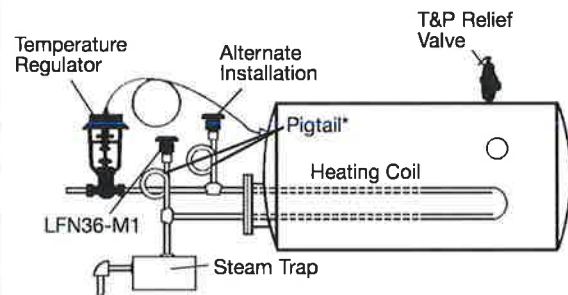


Figure 7

Steam Coil Heaters

*Note: When used for steam service, be sure to use pigtail to prevent live steam from damaging N36 valve.



USA: T: (978) 689-6066 • Watts.com

Canada: T: (905) 332-4090 • Watts.ca

Latin America: T: (52) 81-1001-8600 • Watts.com



ALUMINUM WATER HEATER PANS TECHNICAL SPECIFICATION

Job Name	LR West HS	Item #	34084
Location	LR		
Engineer	Ragsdale	Contractor	Comfort Systems USA
PO #		Tag	EWB-6
Representative	Sanders Supply		

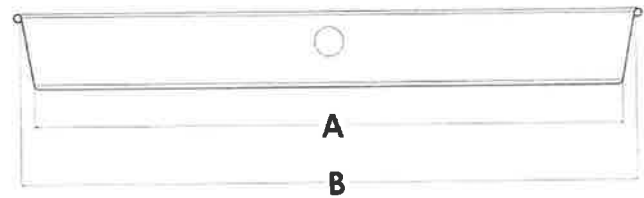
SPECIFICATIONS

Oatey Aluminum Water Heater Pans can be installed under gas or electric water heaters to protect from water damage. Available with 1" CPVC, 1" PVC, 1.5" PVC (over 1" or inside 1.5" Schedule 40 PVC pipe), 1.5" PVC (over 1" or over 1.5" Schedule 40 PVC pipe) and without fitting or without fitting hole.

DESCRIPTION

All dimensions in inches

- Manufactured from 22 gauge Aluminum.
- Pre-cut side opening accommodates drain fitting.
- Meets requirements of Southern Building Code.
- Pan depth is minimum 2-1/2".



PRODUCT SELECTOR

WATER HEATER PANS WITH 1" CPVC FITTING (FITS OVER 1" CPVC PIPE)

✓	Product Number	Description	Qty	Inside Diameter (A)	Outside Diameter (B)
	34170	18" Aluminum Water Heater Pan – Bulk	6	18	19
	34171	20" Aluminum Water Heater Pan – Bulk	6	20	21
	34172	22" Aluminum Water Heater Pan – Bulk	6	22	23
	34173	24" Aluminum Water Heater Pan – Bulk	6	24	25
	34174	26" Aluminum Water Heater Pan – Bulk	6	26	27
	34176	28" Aluminum Water Heater Pan – Bulk	6	28	29
	34175	30" Aluminum Water Heater Pan – Bulk	6	30	31
	34193	32" Aluminum Water Heater Pan	6	32	33

Data is subject to manufacturing tolerances.

Access BIM/Revit content through www.oatey.com



ALUMINUM WATER HEATER PANS TECHNICAL SPECIFICATION

PRODUCT SELECTOR

WATER HEATER PANS WITH 1" PVC FITTING (FITS OVER 1" AND INSIDE 1.5" SCHEDULE 40 PIPE)

✓	Product Number	Description	Qty	Inside Diameter (A)	Outside Diameter (B)
	34079	18" Aluminum Water Heater Pan – Bulk	6	18	19
	34151	20" Aluminum Water Heater Pan – Bulk	6	20	21
	34152	22" Aluminum Water Heater Pan – Bulk	6	22	23
	34153	24" Aluminum Water Heater Pan – Bulk	6	24	25
	34154	26" Aluminum Water Heater Pan – Bulk	6	26	27
	34156	28" Aluminum Water Heater Pan – Bulk	6	28	29
	34085	30" Aluminum Water Heater Pan – Bulk	6	30	31
	34191	32" Aluminum Water Heater Pan	6	32	33

WATER HEATER PANS WITH 1.5" PVC FITTING (FITS OVER 1" AND OVER 1.5" SCHEDULE 40 PIPE)

	34081	20" Aluminum Water Heater Pan – Bulk	6	20	21
	34082	22" Aluminum Water Heater Pan – Bulk	6	22	23
	34083	24" Aluminum Water Heater Pan – Bulk	6	24	25
➔	34084	26" Aluminum Water Heater Pan – Bulk	6	26	27
	34103	28" Aluminum Water Heater Pan – Bulk	6	28	29
	34107	30" Aluminum Water Heater Pan	6	29	30

WATER HEATER PANS WITHOUT FITTING & WITHOUT HOLE

	34090	18" Aluminum Water Heater Pan – Bulk	6	18	19
	34091	20" Aluminum Water Heater Pan – Bulk	6	20	21
	34092	22" Aluminum Water Heater Pan – Bulk	6	22	23
	34093	24" Aluminum Water Heater Pan – Bulk	6	24	25
	34094	26" Aluminum Water Heater Pan – Bulk	6	26	27
	34095	30" Aluminum Water Heater Pan – Bulk	6	30	31

WATER HEATER PAN ADAPTERS

	34086	1" & 1-1/2" PVC Adapter (Fits over 1" and over 1.5" Schedule 40 pipe)	12
	34088	1" & 1-1/2" PVC Adapter (Fits over 1" and inside 1.5" Schedule 40 pipe)	12
	34089	1" CPVC Adapter (Fits over 1" CPVC pipe)	12

Data is subject to manufacturing tolerances.

Access BIM/Revit content through www.oatey.com

DWH-1,DWH-2



Lochinvar®
HIGH EFFICIENCY BOILERS & WATER HEATERS

**ARMOR®
CONDENSING WATER HEATER**

Submittal Sheet

AWH-Sub-06

ARMOR CONDENSING WATER HEATER / 400,000 TO 4,000,000 BTU/HR

Job Name: LR West HS

Location: LR

Engineer: Ragsdale

Agent/Wholesaler: Sanders Supply

Contractor: Comfort Systems USA

Model No. AWH0800NPM

Type Gas Natural Btu/Hr Input 800,000

Recovery Rate in GPH 950 @ 100 °F Rise

Equipment Tag(s):

DWH-1,DWH-2

+

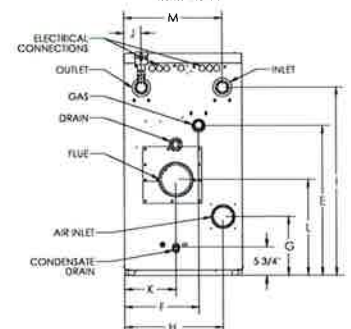
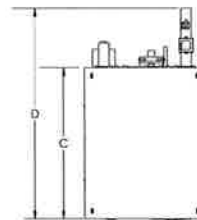
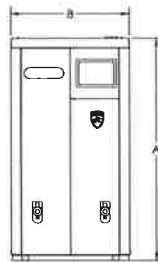
NOTES:

FRONT VIEWS

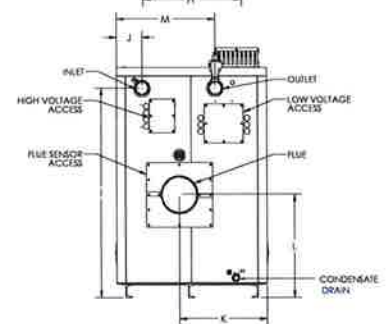
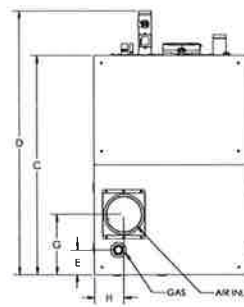
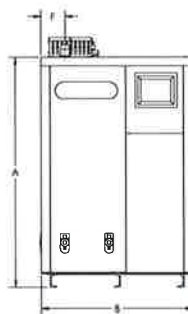
TOP VIEWS

REAR VIEWS

MODELS 400-1000



MODELS 1250-4000



Model Number	Btu/Hr Input	Thermal Efficiency	GPH 100°F Rise
AWH0400NPM	399,000	99%	479
AWH0500NPM	500,000	99%	600
AWH0650NPM	650,000	98%	772
✓ AWH0800NPM	800,000	98%	950
AWH1000NPM	999,000	98%	1,187
AWH1250NPM	1,250,000	98%	1,485
AWH1500NPM	1,500,000	98%	1,782
AWH2000NPM	1,999,000	98%	2,375
AWH3000NPM	3,000,000	98%	3,564
AWH4000NPM	4,000,000	98%	4,752

Model Number	A	B	C	D	E	F	G	H	I	J	K	L	M	Gas Conn.	Water Conn.	Air Inlet	Vent Size	Ship Wgt. (lbs.)
AWH0400NPM	45"	24"	30-1/2"	42-1/2"	29-3/4"	20-1/4"	12"	20"	38"	3-1/2"	10-1/2"	19-1/4"	20"	1"	2"	4"	4"	326
AWH0500NPM	45"	24"	30-1/2"	42-1/2"	29-3/4"	20-1/4"	12"	20"	38"	3-1/2"	10-1/2"	19-1/4"	20"	1"	2"	4"	4"	333
AWH0650NPM	45"	24"	41"	53"	30-1/2"	15-1/4"	12"	20"	38"	3-1/2"	10-1/2"	19-1/4"	20"	1-1/4"	2"	4"	6"	424
✓ AWH0800NPM	45"	24"	41"	53"	30-1/2"	15-1/4"	12"	20"	38"	3-1/2"	10-1/2"	19-1/4"	20"	1-1/4"	2"	4"	6"	433
AWH1000NPM	45"	24"	48"	62"	30-1/2"	15-3/4"	12"	20"	38"	3-1/2"	10-1/2"	19-1/4"	20"	1-1/4"	2-1/2"	6"	6"	494
AWH1250NPM	51-1/2"	34"	49"	59"	5-1/2"	5-1/2"	13-1/2"	6-3/4"	46-3/4"	5-3/4"	19-3/4"	23"	22-1/2"	1-1/2"	2-1/2"	8"	8"	1,519
AWH1500NPM	51-1/2"	34"	52-3/4"	62-3/4"	4-1/2"	4-1/2"	13-1/2"	6-3/4"	46-3/4"	5-3/4"	19-3/4"	23"	22-1/2"	1-1/2"	2-1/2"	8"	8"	1,672
AWH2000NPM	51-1/2"	34"	65-1/2"	75-1/2"	7"	5-3/4"	14-3/4"	7-1/4"	46-3/4"	6-3/4"	18-3/4"	23"	22-1/2"	1-1/2"	2-1/2"	8"	8"	1,931
AWH3000NPM	67-1/4"	48-1/4"	79-3/4"	93-3/4"	4-3/4"	6-3/4"	17-3/4"	8-3/4"	60-1/4"	8-1/2"	25-1/2"	29-1/2"	40"	2"	4"	10"	10"	3,147
AWH4000NPM	67-1/4"	48-1/4"	96"	110"	5"	7-1/2"	17-3/4"	8-3/4"	60-1/4"	8-1/2"	25-1/2"	29-1/2"	40"	2-1/2"	4"	12"	12"	3,694

Change 'N' to 'L' for LP gas models. No deration on LP models. Performance data is based on manufacturer test results.



Standard Features

- › Up to 99% Thermal Efficiency
- › Modulating Burner Turndown Ratio
 - 10:1 Turndown AWH0400NPM-AWH1000NPM
 - 5:1 Turndown AWH1250NPM-AWH4000NPM
- › ENERGY STAR Rated
- › CON-X-US Remote Connect
- › Indoor/Outdoor Convertible
- › Direct-Spark Ignition
- › Low NOx Operation
- › Sealed Combustion
- › Low Gas Pressure Operation
- › Vertical & Horizontal Vent Termination
- › Category IV Venting up to 150 Feet
- › PVC, CPVC, Polypropylene, or AL29-4C Vent Mat'l
- › **ASME Stainless Steel Heat Exchanger**
 - Gasketless Design
 - 160 psi Working Pressure
- › Stainless Steel or All Bronze Circulating Pump
- › On/Off Switch
- › Adjustable High Limit with Manual Reset
- › High & Low Gas Pressure Switches w/Manual Reset (AWH1250 - 4000)
- › Flow Switch
- › Inlet & Outlet Temperature Sensors
- › ASME Temperature & Pressure Relief Valve
- › Zero Clearance to Combustible Material
- › Approved for Combustible Floor Installation
- › 1 Year Warranty on Parts
- › 5 Year Limited Warranty (see warranties for details)

Standard Pumps, All Bronze

- › AWH0400-0650 / 1/2 HP, 120V, 1 PH, 60 Hz
- › AWH0800-1000 / 3/4 HP, 120V, 1 PH, 60 Hz
- › AWH1250-1500 / 1 HP, 120V, 1 PH, 60 Hz
- › AWH2000 / 2 HP, 208V, 3 PH, 60 Hz
- › AWH3000 / 5 HP, 208V, 3 PH, 60 Hz
- › **AWH4000 / 5 HP, 480V, 3 PH, 60 Hz**

Optional Equipment

- ☐ Audible Alarm
- ☐ High & Low Gas Pressure Switches w/Manual Reset (AWH0400-1000)
- ☐ Condensate Neutralization Kit
- ☐ SMART TOUCH™ PC Software
- ☐ Modbus or BACnet MSTP Communications
- ☐ BMS Gateway to LonWorks or BACnet
- ☐ IP Indoor to Outdoor Kits
- ☐ Outdoor to Indoor Kits (AWH1250-4000)
- ☐ Stack Frame (AWH0400-1000)



Codes & Registrations

ASME Certified, "HLW" Stamp ANSI Z21.10.3/CSA Certified

SMART TOUCH™ Features

- › **SMART TOUCH™ Operating Control**
 - Full-Color Touchscreen LCD Display
 - Built-in Cascading Sequencer for up to 8 Water Heaters
 - Building Automation Integration with 0-10 VDC Input
 - Password Security
 - Low Water Flow Safety Control & Indication
 - Inlet & Outlet Temperature Readout
 - Freeze Protection
 - Service Reminder
 - Time Clock
 - Data Logging
 - Hours Running
 - Ignition Attempts
 - Last 10 Lockouts
 - Programmable System Efficiency Optimizers
 - Night Setback
- › **High Voltage Terminal Strip**
 - 120V/1PH/60 Hz (AWH0400-1500)
 - 208V/3PH/60 Hz (AWH2000-3000)
 - 480V/3PH/60 Hz (AWH4000)
- › **Low Voltage Terminal Strip**
 - 24 VAC Auxiliary Device Relay
 - Auxiliary Proving Switch Contacts
 - Alarm on Any Failure Contacts
 - Pump Contacts
 - Runtime Contacts
 - Tank Thermostat Contacts
 - Tank Sensor Contacts
 - Cascade Contacts



Lochinvar, LLC
300 Maddox Simpson Parkway
Lebanon, Tennessee 37090
P: 615.889.8900 / F: 615.547.1000
f t i n Lochinvar.com



LOW LEAD CONTENT

HLW

TWH-2,3,4



Non-Thermostatic Heater Ideal for Handwashing And Other Fixed-Flow Applications

Specifications

Tankless Electric Water Heater

Applications

- Non-public handwashing
- Kitchen, bar, utility sink
- Point-of-use & fixed-flow fixture
- One (1) lavatory faucet, sensor faucet or metering faucet

Performance Features

- Self-diagnostics with intelligent controls actively protect heater in installed environment
- InfoCue™ visible LED indicator communicates system status and heater operation feedback
- SafeStart™ technology engages upon start-up to help avoid dry-fire occurrence
- Low activation flow starting at 0.2 GPM turn on (model dependent)
- Mounts in any orientation for a flexible installation
- Compact size fits almost anywhere; suitable for ADA compliant facilities
- Only one cold water line needed for an easy installation
- No T&P relief valve needed (check local codes)
- Save water and time by installing unit at the point-of-use
- Integral 3/8" compression fittings; no soldering or sweat connections required
- Control system activates heater only on demand
- High temperature limit switch enables safe operation
- 5-year limited warranty on leaks, 1-year on parts

Product Specifications

Dimensions:	10.75" H x 5.25" W x 3" D
Product Weight: (model dependent)	2.75 lb/3 lb
Cover:	ABS-UL 94 5VA
Color:	White
Min. Operating Pressure:	30 PSI
Max. Operating Pressure:	150 PSI
Element:	Replaceable nichrome cartridge insert
Fittings:	3/8" compression fittings
UL listed file number:	E86887

Special Design Service

Inquiries for units for unique applications are welcome.
Call our Technical Service department at **1 800 543 6163**.



Mount in any Orientation



SafeStart™ Technology



"Seal of Approval" only by the Water Quality Association against NSF 372 for lead-free compliance



"This water heater of this product complies with NSF 372 for 0.05% lead and meets NSF/ANSI 372"



Note: For optimum performance, mounting location should be within 2 feet of fixture.

Suggested Specification

Tankless water heater shall be an Eemax model number **SPEX 3208**.

Unit shall have ABS-UL 94 5VA rated cover. Unit shall allow mounting in any orientation. Element shall be replaceable cartridge insert. Element shall be iron-free, nickel-chrome material. Unit shall have replaceable filter in the inlet connector. Unit shall include an integrated flow meter to ensure accurate turn-on / turn-off flow rate. Heater shall be fitted with 3/8" compression fittings to eliminate the need for soldering. Maximum operating pressure of 150 PSI. Diagnostic features to include LED error/fault indicator. Heater shall employ technology that engages upon start-up to avoid dry-fire occurrence. Hot water storage tanks prohibited. Unit shall be Eemax or approved equal.

NOTE: Refer to rating chart for product information.

Specification options to be included with SPEX models:

- N4** NEMA 4 steel cabinet with powder coat finish
- N4X** NEMA 4 stainless steel, corrosion-resistant cabinet

EX68031-15 Disconnect Switch (see page 42-43)

NOTE: Unit should not be used in a recirculation application. Contact an EEMAX representative for alternative recommendations.

FlowCo

Non-Thermostatic Heater Ideal for Handwashing And Other Fixed-Flow Applications

Specifications

Tankless Electric Water Heater

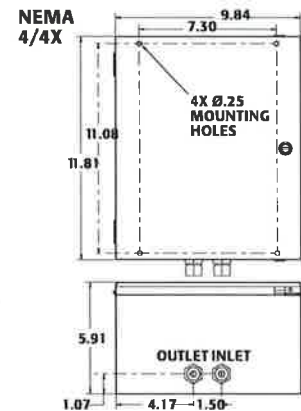
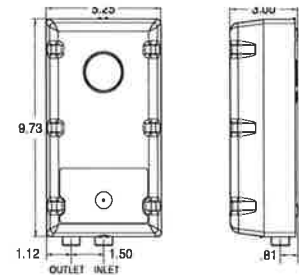
TEMPERATURE RISE °F

	KW	TOTAL AMP DRAW	CIRCUITS REQUIRED X BREAKER SIZE	RECOMMENDED WIRE SIZE (75° C/CU)	TURN ON (GPM)	0.3 GPM	0.5 GPM	.75 GPM	1.0 GPM	1.5 GPM	2.0 GPM
VOLTS 120											
SPEX1812	1.8	15	(1x15)	14 AWG	0.2	41°	25°	16°	12°	8°	6°
SPEX1812CA (Canadian model)	1.8	15	(1x15)	14 AWG	0.2	41°	25°	16°	12°	8°	6°
SPEX2412	2.4	20	(1x20)	14 AWG	0.25	55°	33°	22°	16°	11°	8°
SPEX2412CA (Canadian model)	2.4	20	(1x20)	14 AWG	0.25	55°	33°	22°	16°	11°	8°
SPEX3012	3.0	25	(1x25)	12 AWG	0.25	68°	41°	27°	20°	14°	10°
SPEX3012CA (Canadian model)	3.0	25	(1x25)	12 AWG	0.25	68°	41°	27°	20°	14°	10°
SPEX3512	3.5	30	(1x30)	10 AWG	0.3	80°	48°	32°	24°	16°	12°
SPEX3512CA (Canadian model)	3.5	30	(1x30)	10 AWG	0.3	80°	48°	32°	24°	16°	12°
VOLTS 208 Single Phase											
SPEX3208	3.0	15	(1x15)	14 AWG	0.25	68°	41°	27°	20°	14°	10°
SPEX3208CA (Canadian model)	3.0	15	(1x15)	14 AWG	0.25	68°	41°	27°	20°	14°	10°
SPEX4208	4.1	20	(1x20)	14 AWG	0.4	—	56°	37°	28°	19°	14°
SPEX4208CA (Canadian model)	4.1	20	(1x20)	14 AWG	0.4	—	56°	37°	28°	19°	14°
SPEX8208	8.3	40	(1x40)	8 AWG	0.7	—	—	76°	57°	38°	28°
SPEX8208CA (Canadian model)	8.3	40	(1x40)	8 AWG	0.7	—	—	76°	57°	38°	28°
VOLTS 240*											
SPEX35	3.5	15	(1x15)	14 AWG	0.3	80°	48°	32°	24°	16°	12°
SPEX35 (derated 208V performance)	2.6	13	(1x15)	14 AWG	0.3	—	36°	24°	18°	12°	9°
SPEX35CA (Canadian model)	3.5	15	(1x15)	14 AWG	0.3	80°	48°	32°	24°	16°	12°
SPEX48	4.8	20	(1x20)	14 AWG	0.4	—	66°	44°	33°	22°	16°
SPEX48 (derated 208V performance)	3.6	17	(1x20)	14 AWG	0.4	—	49°	33°	25°	16°	12°
SPEX48CA (Canadian model)	4.8	20	(1x20)	14 AWG	0.4	—	66°	44°	33°	22°	16°
SPEX58	5.5	23	(1x25)	12 AWG	0.5	—	75°	50°	38°	25°	19°
SPEX58 (derated 208V performance)	4.1	20	(1x20)	14 AWG	0.5	—	56°	37°	28°	19°	14°
SPEX58CA (Canadian model)	5.5	23	(1x25)	12 AWG	0.5	—	75°	50°	38°	25°	19°
SPEX65	6.5	27	(1x30)	10 AWG	0.7	—	—	59°	44°	30°	22°
SPEX65 (derated 208V performance)	4.8	23	(1x25)	12 AWG	0.7	—	—	44°	33°	22°	16°
SPEX65CA (Canadian model)	6.5	27	(1x30)	10 AWG	0.7	—	—	59°	44°	30°	22°
SPEX75	7.5	32	(1x40)	10 AWG	0.7	—	—	68°	51°	34°	26°
SPEX75 (derated 208V performance)	5.6	27	(1x30)	12 AWG	0.7	—	—	51°	38°	25°	19°
SPEX75CA (Canadian model)	7.5	32	(1x40)	10 AWG	0.7	—	—	68°	51°	34°	26°
SPEX95	9.5	40	(1x40)	8 AWG	0.8	—	—	—	65°	43°	32°
SPEX95 (derated 208V performance)	7.0	34	(1x40)	8 AWG	0.8	—	—	—	96°	48°	32°
SPEX95CA (Canadian model)	9.5	40	(1x40)	8 AWG	0.8	—	—	—	65°	43°	32°
VOLTS 277 Single Phase											
SPEX3277	3.0	11	(1x15)	14 AWG	0.25	68°	41°	27°	20°	14°	10°
SPEX3277CA (Canadian model)	3.0	11	(1x15)	14 AWG	0.25	68°	41°	27°	20°	14°	10°
SPEX4277	4.1	15	(1x15)	14 AWG	0.4	—	56°	37°	28°	19°	14°
SPEX4277CA (Canadian model)	4.1	15	(1x15)	14 AWG	0.4	—	56°	37°	28°	19°	14°
SPEX60	6.0	22	(1x25)	12 AWG	0.7	—	—	55°	41°	27°	20°
SPEX60CA (Canadian model)	6.0	22	(1x25)	12 AWG	0.7	—	—	55°	41°	27°	20°
SPEX80	8.0	29	(1x30)	10 AWG	0.7	—	—	73°	55°	36°	27°
SPEX80CA (Canadian model)	8.0	29	(1x30)	10 AWG	0.7	—	—	73°	55°	36°	27°
SPEX90	9.0	33	(1x35)	10 AWG	0.7	—	—	82°	61°	41°	31°
SPEX90CA (Canadian model)	9.0	33	(1x35)	10 AWG	0.7	—	—	82°	61°	41°	31°
SPEX100	10.0	36	(1x40)	8 AWG	0.8	—	—	—	68°	46°	34°
SPEX100CA (Canadian model)	10.0	36	(1x40)	8 AWG	0.8	—	—	—	68°	46°	34°

NOTE: Unit should not be used in a recirculation application. Contact an EEMAX representative for alternative recommendations.

*240V units can be used on 208V single phase with 25% reduced temperature output. Please note per UL standards the rating plate and installation instructions will all be according to a 240V applied voltage. Check with local officials prior to derating the electrical infrastructure.

*C "indicates evaluation and compliance to either Underwriters Laboratories (UL) or Intertek (ETL) under CAN/CSA-C22.2 No. 64/ No. 88.



ST-1,ST-2



Lochinvar®

LOCK-TEMP® ROUND JACKETED TANK

Submittal Sheet

TRJ-Sub-10

LOCK-TEMP® ROUND JACKETED STORAGE TANK

Job Name: LR West HS

Location: LR

Engineer: Ragsdale

Agent/Wholesaler: Sanders Supply

Contractor: Comfort Systems USA

Model
Number: RGA0318

Tank Construction:
Vertical ☒ Horizontal ☐

Tank Lining:
Glass ☒ Cement ☐

Gallon
Capacity: 318

Working
Pressure: 125

Tank
Height: 80" Tank
Dia.: 40"

Equipment Tag(s):

ST-1,ST-2

NOTES:

Standard Features

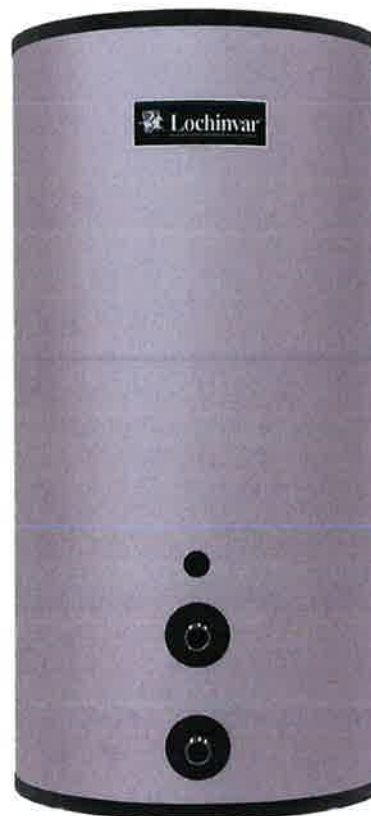
- Five-Year Limited Warranty (See warranty for details)
- Lock-Temp Baffle
- Magnesium Anode
- ASME Certified, "HLW" Stamped (Except RJS models)
- 125 Working Pressure (Except RJ models)

Optional Tank Linings

- ☒ Glass Lined
- ☐ Cement Lined (*Manway comes standard*)

Optional Equipment

- ☐ 150 psi Working Pressure
- ☐ Temperature and Pressure Gauge
- ☐ Handhole (4"x 6")
- ☐ Lifting Lugs
- ☐ Manway (Optional on 34" and 40" diameter only)
- ☐ 125 psi Temperature and Pressure Relief Valve
- ☐ 150 psi Temperature and Pressure Relief Valve



Lock-Temp® Round Jacketed Storage Tanks Dimensions & Specifications

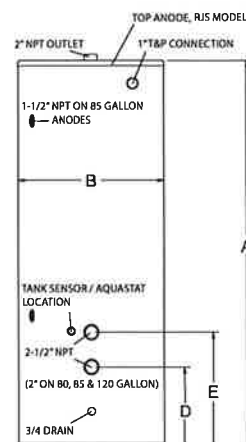
Vertical Round Jacketed Glass Lined Tanks

Model Number	Gal. Cap.	A	B	D	E	Shipping Weight	
						125 psi	150 psi
○ RJS080M	80	63"	25-1/4"	9-1/4"	14-1/4"	-	240
○ RJS085M	85	49-1/2"	28"	9-1/2"	14-1/2"	-	255
○ RJS120M	119	62"	29-1/2"	9-1/2"	14-1/2"	-	352
○ RJA120	119	62-1/2"	28"	9-1/2"	14-1/2"	-	365
○ RJA175	175	66-1/4"	32"	11-1/4"	17-1/4"	-	578
○ RJA200	200	77-1/4"	32"	11-1/4"	17-1/4"	-	634

Models in this table are Glass Lined only

A in model number indicates ASME Construction

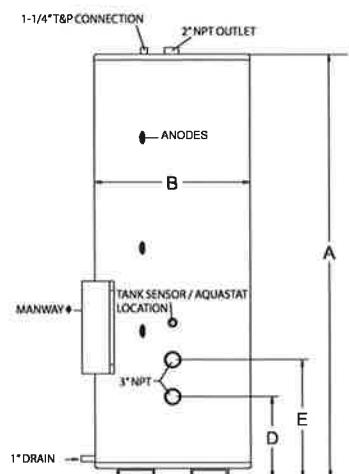
RJS120M is 160 psi working pressure



Vertical Round Jacketed ASME Tanks

Model Number	Gal. Cap.	A	B	D	E	Shipping Weight	
						125 psi	150 psi
○ R*A0257	257	91"	34"	18"	26"	904	904
✓ R*A0318	318	80"	40"	19-1/2"	27-1/2"	987	987
○ R*A0432	432	80"	46"	21"	29"	1,188	1,188
○ R*A0504	504	92"	46"	21"	29"	1,329	1,329
○ R*A0650	650	92"	52"	23-1/2"	31-1/2"	1,817	1,817
○ R*A0752	752	104"	52"	23-1/2"	31-1/2"	2,030	2,030
○ R*A0940	940	128"	52"	23-1/2"	31-1/2"	2,710	2,710

* Indicates tank lining: Use G=Glass Lined; C=Cement Lined

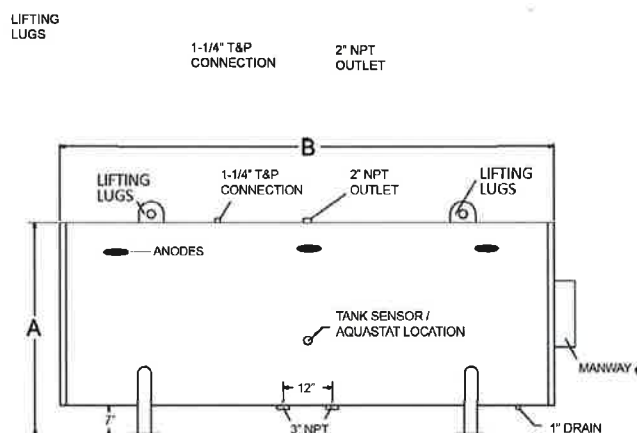


◆ Manway is optional on 257 and 318 gal. only.
Manway is standard on 432 gal. and larger.

Horizontal Round Jacketed ASME Tanks

Model Number	Gal. Cap.	A	B	Dia.	Shipping Weight	
					125 psi	150 psi
○ R*A0250H	250	41"	87"	34"	1,157	1,157
○ R*A0300H	300	47"	76"	40"	1,355	1,355
○ R*A0400H	400	53"	76"	46"	1,587	1,701
○ R*A0500H	500	53"	88"	46"	1,711	1,853
○ R*A0600H	600	59"	88"	52"	2,053	2,053
○ R*A0700H	700	59"	100"	52"	2,399	2,399
○ R*A1000H	1000	59"	124"	52"	3,114	3,114

* Indicates tank lining: Use G=Glass Lined; C=Cement Lined



◆ Manway is optional on 250 and 300 gal. only.
Manway is standard on 400 gal. and larger.



Lochinvar, LLC
300 Maddox Simpson Parkway
Lebanon, Tennessee 37090
P: 615.889.8900 / F: 615.547.1000
Lochinvar.com

ET-1,ET-2



DTS - DTL Series THERMAL EXPANSION TANKS

Designed and constructed per ASME Code Section VIII

SUBMITTAL DATA SHEET

MODEL NUMBER	Capacity		B		A		NPT SYSTEM CONNECTION	APPR. WEIGHT	
	Gals	Liters	ins.	mm.	ins.	mm.		lbs.	Kg.
DTS-8	2.0	8	10.6	270	10.2	259	3/4"	21	9.5
DTS-19	5.0	19	10.6	270	19.3	490	3/4"	32	14.5
DTS-30	8.0	30	15.8	400	15.3	389	3/4"	41	18.6
DTS-45	12.0	45	15.8	400	22.4	569	3/4"	52	23.6
DTS-80	21.0	80	15.8	400	34.9	886	1"	78	35.4
DTS-100	26.5	100	19.7	500	37.3	947	1"	83	37.6
DTS-140	37.0	140	19.7	500	43.3	1100	1"	114	51.7
DTL-170	44.0	170	19.7	500	48.7	1,237	1 1/4"	160	72.6
DTL-200	53.0	200	21.7	550	47.2	1,199	1 1/4"	170	77.1
DTL-300	80.0	300	25.6	650	49.0	1,245	1 1/4"	215	97.5
DTL-400	105.0	400	25.6	650	57.9	1,471	1 1/4"	248	112.5
DTL-450	120.0	450	29.5	750	55.8	1,417	1 1/4"	283	128.4
DTL-500	132.0	500	29.5	750	60.1	1,527	1 1/4"	341	154.7
DTL-600	160.0	600	25.6	650	88.8	2,256	2"	391	177.4
DTL-800	210.0	800	29.5	750	91.5	2,324	2"	531	240.9
DTL-1000	265.0	1,000	31.5	800	95.5	2,426	2"	561	254.5
DTL-1200	320.0	1,200	35.5	900	100.6	2,555	3"	960	435.4
DTL-1400	370.0	1,400	37.5	950	102.4	2,601	3"	1,040	471.7
DTL-1600	420.0	1,600	41.5	1,050	99.2	2,520	3"	1,183	536.6
DTL-2000	530.0	2,000	43.5	1,105	113.5	2,883	3"	1,318	597.8
DTL-3000	790.0	3,000	51.2	1,300	118.2	3,002	3"	1,865	845.9
DTL-4000	1,060.0	4,000	61.0	1,550	123.0	3,124	3"	2,616	1,186.6
DTL-5000	1,320.0	5,000	63.0	1,600	132.0	3,353	3"	2,892	1,311.8

SPECIFICATIONS

Maximum working pressure
150 PSI (10.5 kg/cm²)

Maximum operating temp.
240°F (115°C)

Tanks are built in accordance with ASME Section VIII, Division I.

Bladder contains FDA approved compounds and is suitable for domestic potable hot water applications.

Seamless one piece bladder for longer life.

Bladder is completely replaceable.

Acceptance volume is 90% of stated tank capacity.

Epoxy gray finish exterior.

Factory precharge

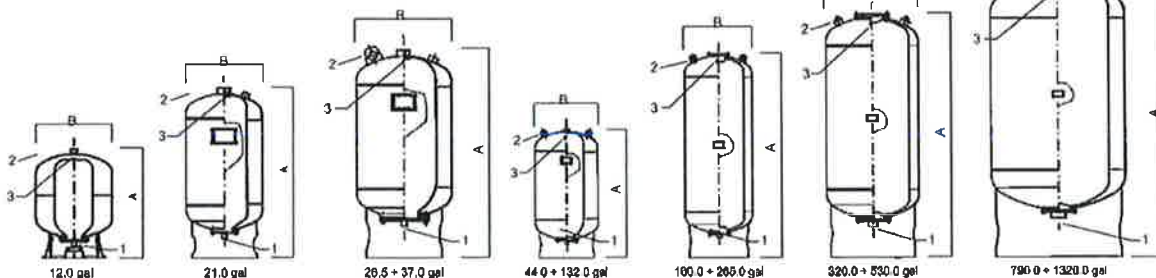
- DTS Series: 40 psig (2.81 kg/cm²)
- DTL Series: 55 psig (3.87 kg/cm²)

System connection: Epoxy coated system connection

DTS-45 thru DTL-450: bottom connection
DTL-1400 thru DTL-5000 available with either top or bottom connection

DTS-45 thru DTL-5000: NPT CONN.

A. Total Height
B. Diameter
1. System connection
2. Lifting ring
3. Precharge valve



Job Name	
Location	
Engineer	
Contractor	Contractor P.O. Number

Sales representative	
Model number ordered	Qty.
System operating temperature Min. max.	
Date submitted	

Dimensional data and weights are approximate
Rev. 12-2009

ET-3



DTS - DTL Series THERMAL EXPANSION TANKS

Designed and constructed per ASME Code Section VIII

SUBMITTAL DATA SHEET

MODEL NUMBER	Capacity		B		A		NPT SYSTEM CONNECTION	APPR. WEIGHT	
	Gals	Liters	ins.	mm.	ins.	mm.		lbs.	Kg.
DTS-8	2.0	8	10.6	270	10.2	259	3/4"	21	9.5
DTS-19	5.0	19	10.6	270	19.3	490	3/4"	32	14.5
DTS-30	8.0	30	15.8	400	15.3	389	3/4"	41	18.6
DTS-45	12.0	45	15.8	400	22.4	569	3/4"	52	23.6
DTS-80	21.0	80	15.8	400	34.9	886	1"	78	35.4
DTS-100	26.5	100	19.7	500	37.3	947	1"	83	37.6
DTS-140	37.0	140	19.7	500	43.3	1100	1"	114	51.7
DTL-170	44.0	170	19.7	500	48.7	1,237	1 1/4"	160	72.6
DTL-200	53.0	200	21.7	550	47.2	1,199	1 1/4"	170	77.1
DTL-300	80.0	300	25.6	650	49.0	1,245	1 1/4"	215	97.5
DTL-400	105.0	400	25.6	650	57.9	1,471	1 1/4"	248	112.5
DTL-450	120.0	450	29.5	750	55.8	1,417	1 1/4"	283	128.4
DTL-500	132.0	500	29.5	750	60.1	1,527	1 1/4"	341	154.7
DTL-600	160.0	600	25.6	650	88.8	2,256	2"	391	177.4
DTL-800	210.0	800	29.5	750	91.5	2,324	2"	531	240.9
DTL-1000	265.0	1,000	31.5	800	95.5	2,426	2"	561	254.5
DTL-1200	320.0	1,200	35.5	900	100.6	2,555	3"	960	435.4
DTL-1400	370.0	1,400	37.5	950	102.4	2,601	3"	1,040	471.7
DTL-1600	420.0	1,600	41.5	1,050	99.2	2,520	3"	1,183	536.6
DTL-2000	530.0	2,000	43.5	1,105	113.5	2,883	3"	1,318	597.8
DTL-3000	790.0	3,000	51.2	1,300	118.2	3,002	3"	1,865	845.9
DTL-4000	1,060.0	4,000	61.0	1,550	123.0	3,124	3"	2,616	1,186.6
DTL-5000	1,320.0	5,000	63.0	1,600	132.0	3,353	3"	2,892	1,311.8

SPECIFICATIONS

Maximum working pressure
150 PSI (10.5 kg/cm²)

Maximum operating temp.
240°F (115°C)

Tanks are built in accordance with ASME Section VIII, Division I.

Bladder contains FDA approved compounds and is suitable for domestic potable hot water applications.

Seamless one piece bladder for longer life.

Bladder is completely replaceable.

Acceptance volume is 90% of stated tank capacity.

Epoxy gray finish exterior.

Factory precharge

- DTS Series: 40 psig (2.81 kg/cm²)
- DTL Series: 55 psig (3.87 kg/cm²)

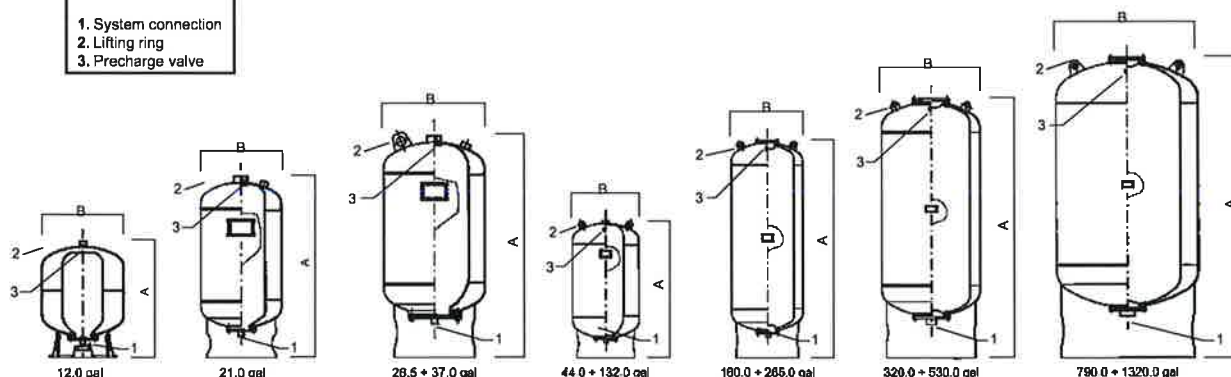
System connection: Epoxy coated system connection

DTS-45 thru DTL-450: bottom connection
DTL-1400 thru DTL-5000 available with either top or bottom connection

DTS-45 thru DTL-5000: NPT Conn.

A. Total Height
B. Diameter

1. System connection
2. Lifting ring
3. Precharge valve



Job Name	
Location	
Engineer	
Contractor	Contractor P.O. Number

Sales representative	
Model number ordered	Qty:
System operating temperature Min.	max.
Date submitted	

Dimensional data and weights are approximate
Rev. 12-2009

TH-1

Adjustable Angle

7" • 9" • 12" Scale Sizes

INDUSTRIAL THERMOMETERS



BX91403 shown

- ▶ 7", 9", 12" Scale
- ▶ ± 1 Scale Division Accuracy
- ▶ Cast Aluminum Case
- ▶ Adjustable Angle Stem


Recognized globally as the Trerice "BX" Industrial Thermometer, this is an instrument of extreme accuracy and rugged dependability. Available in scale sizes of 7" (AX9), 9" (BX9), & 12" (CX9), with a durable cast aluminum case, this universally adjustable, liquid-in-glass thermometer is the most widely specified instrument of its kind.

• Optional features available. Please consult the Options & Accessories Section for details.

Thermowell

• For applications where the process media may be corrosive or contained under pressure, the use of a thermowell is required to prevent damage to the thermometer and facilitate its removal from the process. (Refer to page 158)

Specifications

Models	Scale Sizes		
AX9	7"		
BX9	9"		Adjustable Angle
CX9	12"		
Fill Type	Spirit: Blue colored, organic		
Case	Cast Aluminum, blue epoxy finish		
Stem	Aluminum, brass, 304 stainless steel or air-duct style available		
Connection	Standard: 1 1/4-18 UNEF-2A coupling nut		
	Air-Duct: Reversible mounting flange with 3 bolt holes		
Window	Ultraviolet protective acrylic on ranges to 300° F Glass on ranges over 300° F		
Tube	Lens front, magnifying type		
Scale	Aluminum, white background with black graduations and markings		
Top Plate	ABS		
Accuracy	±1 scale division		
Approximate Shipping Weight			
	AX9: 1.5 lbs [0.68 kg]		
	BX9: 1.6 lbs [0.73 kg]		
	CX9: 2.0 lbs [0.91 kg]		

BX91403

HOW TO ORDER

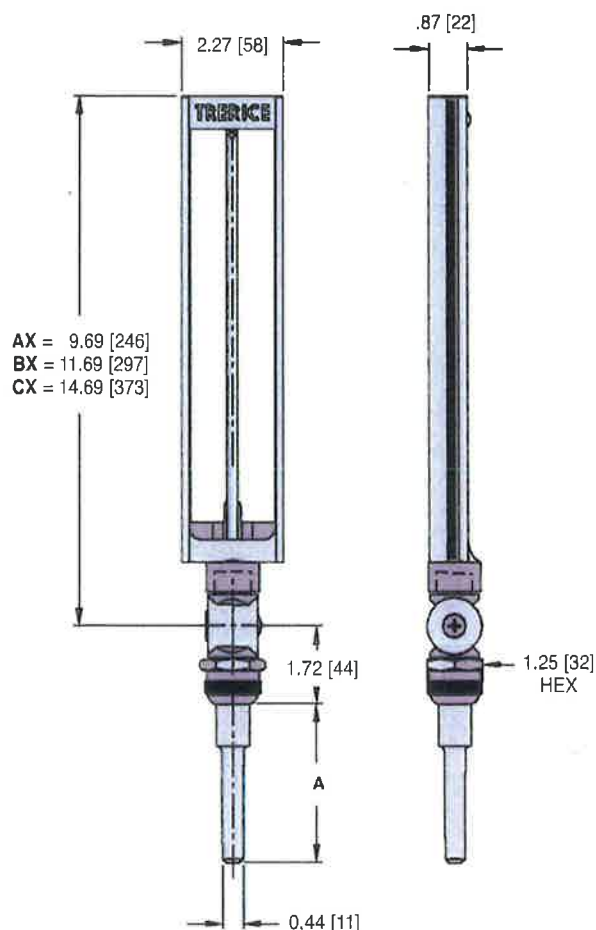
Sample Order Number: **BX9 1 403 07**

Model	Stem (Material)	Stem (Length)	Specific Range
AX9 7" Adjustable	1 Aluminum (standard)	403 3 1/2"	See Standard Ranges
BX9 9" Adjustable	2 Brass	406 6"	
CX9 12" Adjustable	3 304 SS	408 8"	
		512 12"	
	9 Air-Duct (Aluminum)*	006 6" Air-Duct	
		012 12" Air-Duct	

* Not for use with Thermowells

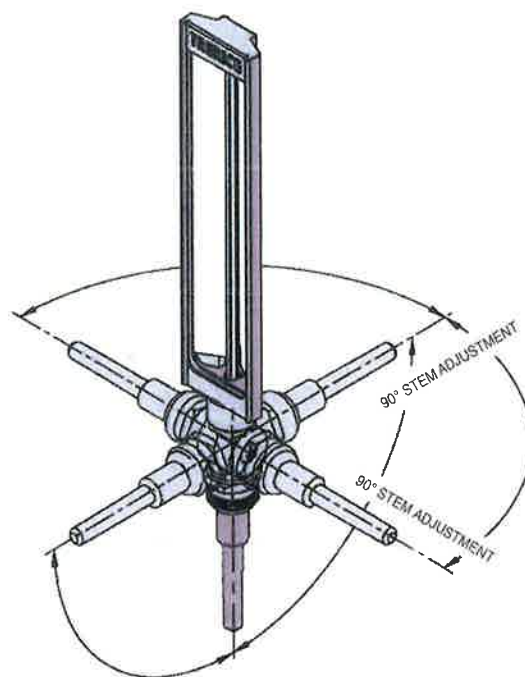
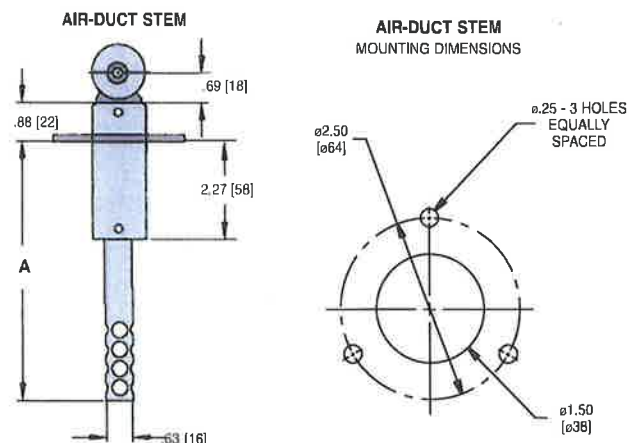
Adjustable Angle

All dimensions are nominal.
Dimensions in [] are in millimeters.



AX = 9.69 [246]
BX = 11.69 [297]
CX = 14.69 [373]

(A) Stem Length	Dimension
3' 1/2"	3.50 [88.9]
6"	6.00 [152.4]
8"	8.00 [203.2]
12"	12.00 [304.8]



Standard Ranges

Fahrenheit Scale		Celsius Scale		Dual Scale		Fahrenheit		Celsius	
Range Code	Range	Range Code	Range	Range Code	Range	Figure Intervals	Minor Divisions	Figure Intervals	Minor Divisions
01	-40° to 110°F	17	-40° to 40°C	41	-40° to 110°F & -40° to 40°C	10°	2°	5°	1°
02	0° to 100°F	24	-18° to 38°C	42	0° to 100°F & -18° to 38°C	5°	1°	5°	0.5°
03	30° to 130°F	25	0° to 55°C	43	30° to 130°F & 0° to 55°C	5°	1°	5°	1°
04	0° to 160°F	26	-18° to 70°C	44	0° to 160°F & -18° to 70°C	10°	2°	5°	1°
06	30° to 180°F	27	0° to 83°C	46	30° to 180°F & 0° to 83°C	10°	2°	5°	1°
07	30° to 240°F	19	0° to 115°C	47	30° to 240°F & 0° to 115°C	10°	2°	5°	1°
08	30° to 300°F	20	0° to 150°C	48	30° to 300°F & 0° to 150°C	10°	2°	10°	2°
09	50° to 400°F	28	10° to 205°C	49	50° to 400°F & 10° to 205°C	25°	5°	10°	2°
15	50° to 500°F	31	10° to 260°C	55	50° to 500°F & 10° to 260°C	25°	5°	10°	2°

Dual scale figure intervals may differ