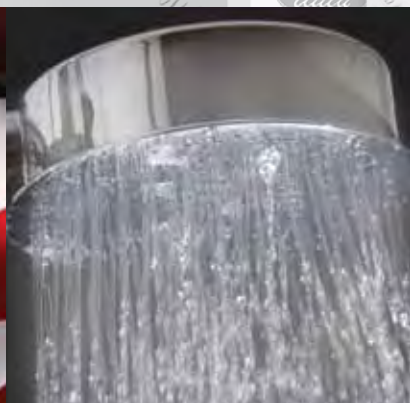
UTICA BOILERS

There Are Some Things You Can Always Depend On...



Utica H_2O

- Stainless Steel Single & Dual Coil Indirect Water Heaters
- Storage Tanks
- Hydronic Buffer Tanks

INTRODUCING THE NEW UTICA H_2O SERIES...

A complete line of Stainless Steel, Single and Dual Coil Indirect Water Heaters, Storage Tanks, and Hydronic Buffer Tanks.

Need An Easy Domestic Hot Water Solution With A Low Operating Cost and the Longevity Of Stainless Steel?

Utica H_2O Stainless Steel Single Coil Indirect Water Heaters

Need A Hot Water Solution To Balance Input and Storage While Reducing Short Cycling?

Utica H_2O Stainless Steel Storage Tanks

Need A Hot Water Solution For Use With Chillers, Heat Pumps, and Low Mass Boilers?

Utica H_2O Stainless Steel Hydronic Buffer Tanks

Need A Hot Water Solution For Solar Applications Or Small Zones?

Utica H_2O Stainless Steel Single & Dual Coil Solar Water Heaters
(Electric Back-Up can heat the tank if solar heat is unavailable)

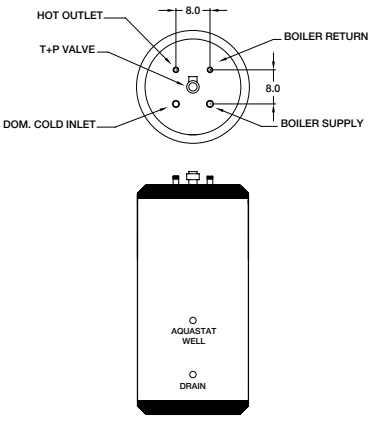
Stainless Steel Single Coil Indire Water Heate

STANDARD FEATURES	
Capacities (Gallons)	30, 40, 40L, 50 , 60, 60L, 80 & 115
316L Stainless Steel Construction	✓
Top Connections (For Easy, Neat, Clean Installation)	✓
Stainless Steel Dip Tube	✓
Thermoplastic Jacket (Won't dent, scratch or corrode)	✓
Low Pressure Drop (Ideal For Low Mass Boilers)	✓
T & P Valve, Stainless Aquastat Well & Drain Valve (Factory installed-taped and doped).	✓
2.25" EPS Insulation (Provides Less Than .5°F Per Hour Standby Loss)	✓
Large Diameter, Smooth Coil Heat Exchangers - Prevent Buildup (Stainless Steel Coils Are 25 to 30' Long and 1-1/8" in Diameter)	✓
Honeywell L4080B (Shipped Loose)	✓
Made in the USA	✓
WARRANTY	
Limited Lifetime Warranty (Residential), 5 Yr. (Commercial)	✓
Limited Lifetime Warranty	N/A
OPTIONS	
Low Profile	40L & 60L Capacities
High Output	80 & 115 Capacities
Electric Back-Up	60, 80 & 115 Capacities
Commercial Connections (For increased DHW flow)	80 & 115 Capacities (1-1/2" Dom., 1-1/4" Blr.)
*Coil	Standard

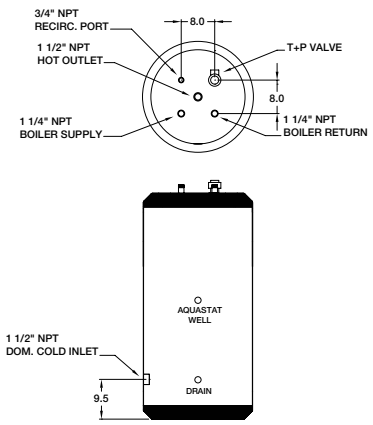
ect rs	Stainless Steel Storage Tank	Stainless Steel Buffer Tanks	Stainless Steel Dual Coil Solar Water Heaters
30, 40, 60, 60L, 80 & 115	40, 60, 80 & 115	60, 80 & 115	
✓	✓	✓	
✓	✓	✓	
✓	N/A	✓	
✓	✓	✓	
✓	✓	✓	
✓	✓	✓	
✓	✓	✓	
N/A	✓ *	✓	
✓	N/A	✓	
✓	✓	✓	
✓	N/A	N/A	
N/A	✓	✓	
60L Capacities	N/A	N/A	
N/A	N/A	N/A	
N/A	N/A	60, 80 & 115 Capacities	
80 & 115 Capacities (1-1/2")	All Capacities (1-1/4", 1-1/2", 2")	N/A	
N/A	40, 60, 80 & 115 Capacities	Standard	

Utica H_2O Stainless Steel **Single Coil** *Indirect Water Heaters*

Dimensions/Weights	Model	Storage Capacity (Gals.)	Coil Heating Surface Sq. Ft.	Piping Connections NPT	
				Domestic Water In/Out (Inches)	Boiler Water In/Out (Inches)
	H2OI30UB	30	7.0	3/4	1
	H2OI40UB	40	7.5	3/4	1
	H2OI40LUB	42	7.1	3/4	1
	H2OI50UB	50	8.0	3/4	1
	H2OI60UB	60	8.3	3/4	1
	H2OI60LUB	60	7.5	3/4	1
	H2OI80UB	80	8.0	1	1
	H2OI115UB	115	8.9	1	1
	H2OI80CUB	80	8.0	1-1/2	1-1/4
	H2OI115CUB	115	8.9	1-1/2	1-1/4
	H2OI80HOUB	80	13.4	1	1
	H2OI115HOUB	115	14.4	1	1
	H2OI80HOCUB	80	13.4	1-1/2	1-1/4
	H2OI115HOCUB	115	14.4	1-1/2	1-1/4
	Note: Max. Working pressure 150 psi for all capacities.				



STANDARD UNIT



COMMERCIAL UNIT

General Information (See Installation, Operation and Maintenance Manual for complete instructions)

Model	Max. First Hour Rating Gal./Hr @		Continuous Rating Gal./Hr. @		Boiler Output Required	Min. Boiler Water Flow Through Coil	Pressure Drop Through Coil
	140° F	115° F	140° F	115° F	(BTU/Hr.)	(Gal./Min.)	(Ft. Water)
H2OI30UB	182	242	155	215	116,200	10.0	2.7
H2OI40UB	202	266	166	230	124,500	10.0	2.9
H2OI40LUB	193	251	157	215	117,900	10.0	2.8
H2OI50UB	222	290	177	245	132,800	10.0	3.1
H2OI60UB	240	311	186	257	139,400	10.0	3.2
H2OI60LUB	220	284	166	230	124,500	10.0	2.9
H2OI80UB	257	328	185	256	138,600	12.0	3.7
H2OI115UB	309	388	206	285	154,200	12.0	4.0
H2OI80CUB	257	328	185	256	138,600	12.0	3.7
H2OI115CUB	309	388	206	285	154,200	12.0	4.0
H2OI80HOUB	386	507	314	435	235,670	15.0	9.0
H2OI115HOUB	439	568	336	465	251,780	15.0	9.5
H2OI80HOCUB	386	507	314	435	235,670	15.0	9.0
H2OI115HOCUB	439	568	336	465	251,780	15.0	9.5

Note: All ratings are based on 200° F boiler water supply and 50° F cold water inlet.
See installation manual for ratings at different temperatures and flow rates.
Specifications subject to change without notice.

Standard Equipment: Factory installed brass drain and relief valves, welded stainless steel cold water dip tube factory installed and pressure tested, Honeywell L4080B aquastat for field installation.

Options: (L) Low profile models for applications with low clearances.
(C) Commercial models with larger tappings for higher flow rates.
(HO) High Output models available to meet greater demand.

Certification/ Decoding

C ETL CM LISTED US
Intertek

H2O I 30 L UB

I = Indirect
Capacity: 30 = 30 Gals., 40 = 40 Gals., 50 = 50 Gals., 60 = 60 Gals., 80 = 80 Gals., 115 = 115 Gals.
L = Lowboy, C = Commercial, HO = High Output, HOC = High Output Commercial
UB = Utica Boiler

Conforms to UL STD 174
Certified to CAN/CSA STD C22.2 No. 110-94

Dimensions & Weights

Models	Height (Inches)	Dia. (Inches)	Shp. Wgt. (Lbs.)
H2OI30UB	34.0	23.5	85
H2OI40UB	44.0	23.5	100
H2OI40LUB	36.0	28.0	100
H2OI50UB	54.0	23.5	110
H2OI60UB	62.0	23.5	125
H2OI60LUB	46.0	28.0	120
H2OI80UB	56.0	28.0	140
H2OI115UB	74.0	28.0	175
H2OI80CUB	56.0	28.0	140
H2OI115CUB	74.0	28.0	175
H2OI80HOUB	56.0	28.0	155
H2OI115HOUB	74.0	28.0	190
H2OI80HOCUB	56.0	28.0	155
H2OI115HOCUB	74.0	28.0	190

Utica H_2O Stainless Steel Storage Tanks

Dimensions/Weights	Model	Storage Capacity (Gals.)	Piping Connections NPT	
			Cold/Hot Supply/Return (Inches)	Heat Source Pressure (Inches)
	H2OST30UB	30	1	1
	H2OST40UB	40	1	1
	H2OST60UB	60	1	1
	H2OST60LUB	60	1	1
	H2OST80UB	80	1	1
	H2OST115UB	115	1	1
	H2OST80CUB	80	1-1/2	1
	H2OST115CUB	115	1-1/2	1

Note: Max. Working pressure 150 psi for all capacities.

General Information (See Installation, Operation and Maintenance Manual for complete instructions)

Specifications subject to change without notice.

Standard Equipment

Factory installed brass drain and relief valves, welded stainless steel cold water dip tube factory installed and pressure tested, Honeywell L4080B aquastat for field installation.

Options

(L) Low profile models for applications with low clearances.
(C) Commercial models available for applications with larger connections.

Certification/ Decoding

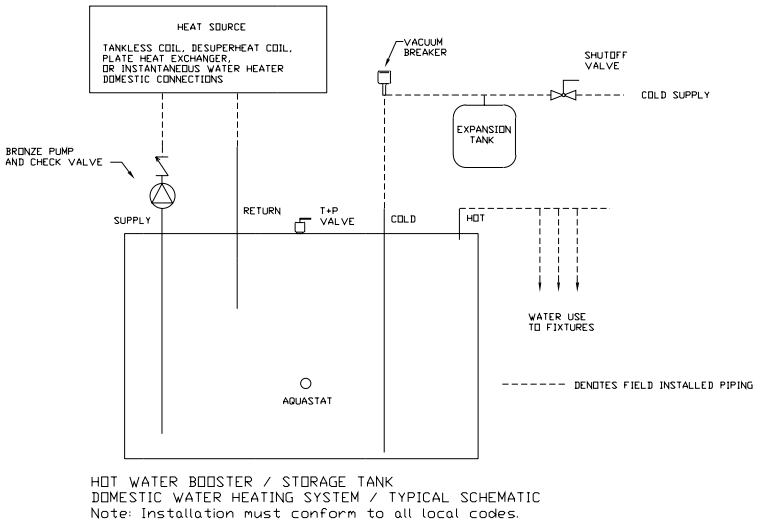
H2O ST 30 L UB

ST = Storage Tank
Capacity: 30 = 30 Gals. 40 = 40 Gals. 60 = 60 Gals. 80 = 80 Gals. 115 = 115 Gals.
L = Lowboy C = Commercial
UB = Utica Boiler

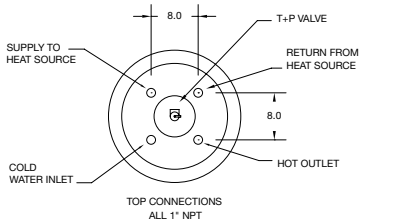
C ETL CM US LISTED Intertek

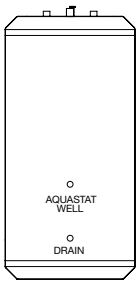
Conforms to UL STD 174
Certified to CAN/CSA STD C22.2 No. 110-94

Schematic Diagram (Typical Installation)

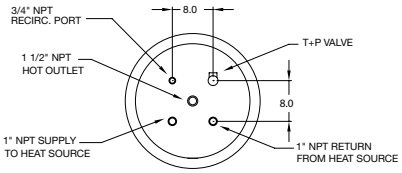


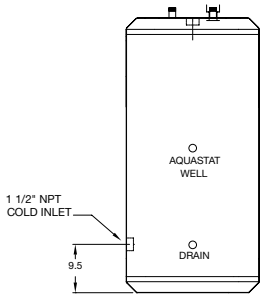
HOT WATER BOOSTER / STORAGE TANK
DOMESTIC WATER HEATING SYSTEM / TYPICAL SCHEMATIC
Note: Installation must conform to all local codes.





STANDARD UNITS



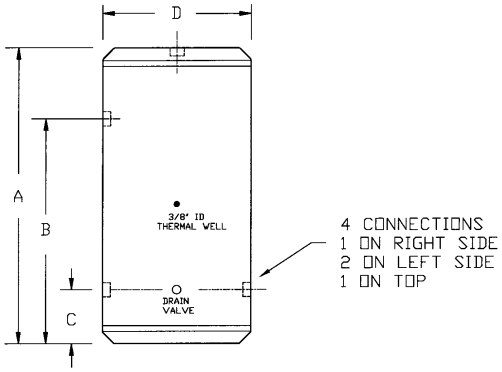


COMMERCIAL UNITS

Dimensions & Weights

Models	Height (Inches)	Dia. (Inches)	Shp. Wgt. (Lbs.)
H2OST30UB	34.0	23.5	75
H2OST40UB	44.0	23.5	90
H2OST60UB	62.0	23.5	115
H2OST60LUB	46.0	23.5	110
H2OST80UB	56.0	28.0	140
H2OST115UB	74.0	28.0	175
H2OST80CUB	56.0	28.0	140
H2OST115CUB	74.0	28.0	175

Utica H_2O Stainless Steel **Buffer Tanks**

Dimensions/Weights	Model	Storage Capacity (Gals.)	Piping Connections NPT (Inches)
	H2OBT40114UB	40	1-1/4
	H2OBT40112UB		1-1/2
	H2OBT402UB		2
	H2OBT60114UB	60	1-1/4
	H2OBT60112UB		1-1/2
	H2OBT602UB		2
	H2OBT80112UB	80	1-1/4
	H2OBT80114UB		1-1/2
	H2OBT802UB		2
	H2OBT115114UB	115	1-1/4
	H2OBT115112UB		1-1/2
	H2OBT1152UB		2
	H2OBT40114WCUB	40	1-1/4
	H2OBT40112WCUB		1-1/2
	H2OBT402WCUB		2
	H2OBT60114WCUB	60	1-1/4
	H2OBT60112WCUB		1-1/2
	H2OBT602WCUB		2
	H2OBT80114WCUB	80	1-1/4
	H2OBT80112WCUB		1-1/2
	H2OBT802WCUB		2
	H2OBT115114WCUB	115	1-1/4
	H2OBT115112WCUB		1-1/2
	H2OBT1152WCUB		2

Note: Max. Working pressure 60 psi for all capacities.

General Information (See Installation, Operation and Maintenance Manual for complete instructions)

Specifications subject to change without notice.

Standard Equipment	**Factory installed brass drain and relief valves, welded stainless steel cold water dip tube factory installed and pressure tested, Honeywell L4080B aquastat for field installation.**
Options	**(WC) With Coil**
Certification/ Decoding	**H2O BT 40 114 WC UB** BT = Buffer Tank Capacity: 40 = 40 Gals. 60 = 60 Gals. 80 = 80 Gals. 115 = 115 Gals. 114 = 1-1/4" NPT 112 = 1-1/2" NPT 2 = 2" NPT WC = With Coil UB = Utica Boiler C ETL LISTED US Intertek Conforms to UL STD 174 Certified to CAN/CSA STD C22.2 No. 110-94

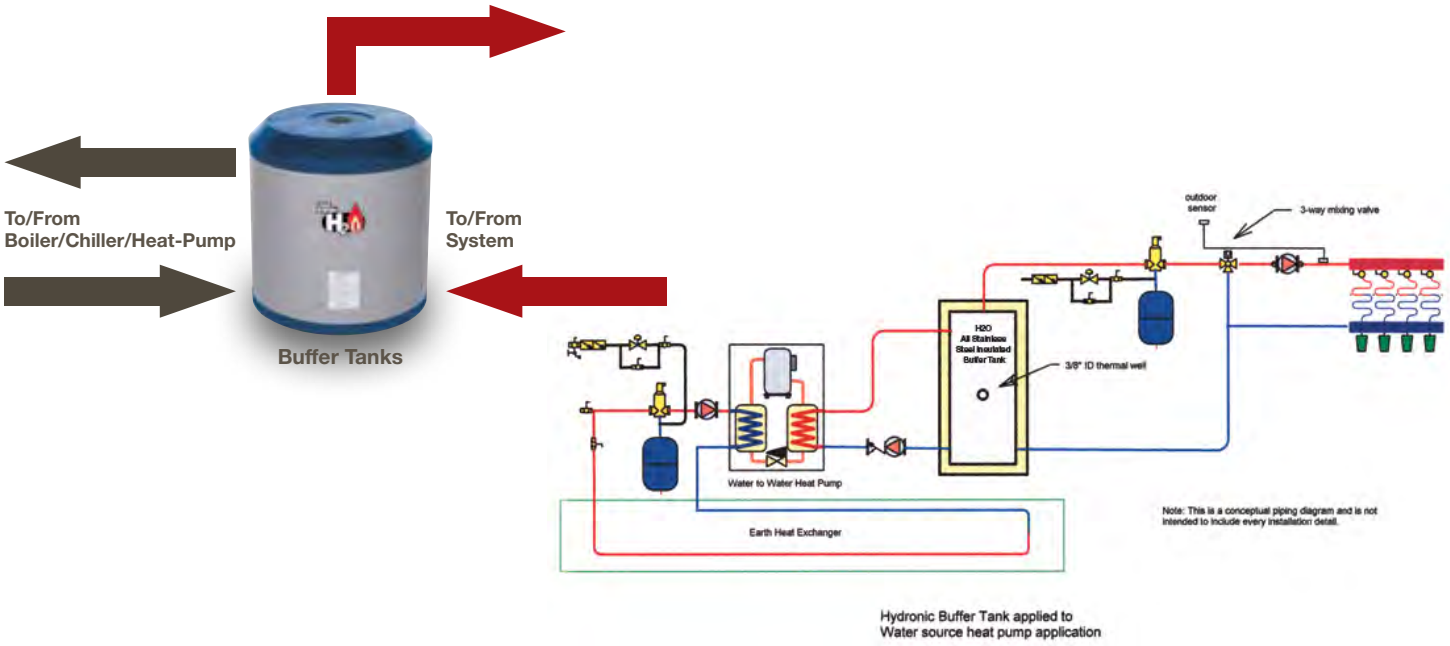
Dimensions & Weights

Model	Height A (Inches)	B (Inches)	C (Inches)	Shp. Wgt. (Lbs.)
H2O40BT114UB	42.0	31	11	87 (97 WC)
H2O40BT112UB				
H2O40BT2UB				
H2O60BT114UB	44.0	31.5	11.5	115 (125 WC)
H2O60BT112UB				
H2O60BT2UB				
H2O80BT114UB	54.0	40.5	11.5	125 (135 WC)
H2O80BT112UB				
H2O80BT2UB				
H2O115BT114UB	72.0	61.5	11.5	160 (170 WC)
H2O115BT112UB				
H2O115BT2UB				

UTICA H_2O STAINLESS STEEL BUFFER TANKS

- Reduces chiller or boiler short cycling
  (Short cycling results in reduced operating efficiency and shorter equipment life)
- Used in systems having several low BTU cooling or heating loads calling at different times
- Full size tappings on buffer tank for peak performance (1-1/4", 1-1/2", and 2")
- **Used in systems operating below the design load condition, which is most of the time.**

H_2O HYDRAULICALLY DECOUPLED



Hydronic Buffer Tank applied to
Water source heat pump application

Buffer Tank Sizing - Calculating Capacity

Utica H_2O buffer tanks are a simple, cost effective way to improve overall system efficiency by reducing unnecessary equipment short cycling. The recommended capacity or volume of a buffer tank is based on four variables.

1) The duration of the heating or cooling source "on time" (minutes). The desired length of "on time" for each run cycle depends on the type of equipment used. Heat pump and chiller manufacturers typically recommend a minimum of 5 to 10 minutes on time, and boiler manufacturers may recommend a minimum of 10 minutes "on time". Check with your equipment manufacturer. Generally, the longer the "on time", the higher the overall operating efficiency.
2) The minimum rate of heat input (BTU/HR). This is based on the heat pump or chiller output, or the boiler output at the minimum firing rate if the boiler has a variable input system that ramps input down as the demand decreases.
3) The minimum system load (BTU/HR). This is the demand placed on the system with the smallest zone calling for heat.
4) The allowable tank temperature rise (deg. F). This varies depending on the type of heating or cooling system used, and on the design of the distribution system. Chillers may require a tight, (6 deg. F), differential to assure good dehumidification and prevent freezing, heat pumps may require a (10 deg. F) differential to maintain a high COP, and boilers with hydronic heating distribution systems may require a differential anywhere between 10 to 40 deg. F depending on the application.

The following formula determines the tank volume:

$$V = \frac{T \times (Q \text{ heat input} - Q \text{ min. heat load})}{\text{Tank temp. rise} \times 500}$$

V = Buffer tank volume (gallons)
Q heat source = heat source output (BTU/HR)
Tank temp rise (deg. F)
T = desired heat source "on cycle" (min.)
Q min. heat load = heat output to minimum load

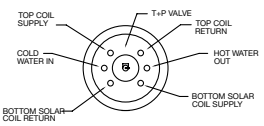
Water to Water Heat Pump Example:
Town and Country Mechanical wants a minimum heat pump on time of 10 minutes. The heat pump output is 46,500 BTU/HR. The smallest zone is a 7,000 BTU/HR bathroom. The allowable temperature differential is 90 to 100 deg. F for the radiant heat zones.

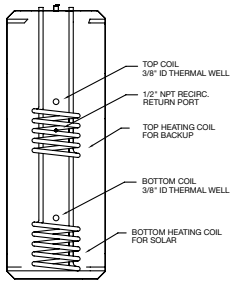
$$V = \frac{10 \times (46{,}500 - 7{,}000)}{(100\text{-}90) \times 500} = 79.0 \text{ Gallons minimum volume. Choose the H2O80BT buffer tank.}$$

Utica H_2O Stainless **Steel Dual and Single Coil** *Solar Water Heaters*

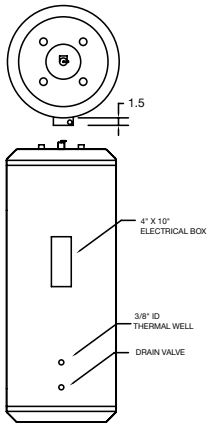
Dimensions/Weights	Model	Storage Capacity (Gals.)	Top Coil Heating Surface Sq. Ft.	Bottom Coil Heating Surface Sq. Ft.	Piping Connections NPT (Inches)
	SINGLE COIL				
	H2OI60EUB	60	N/A	8.3	1
	H2OI80EUB	80	N/A	8.0	1
	H2OI115EUB	115	N/A	8.9	1
	DUAL COIL				
	H2OI60DUB	60	7.4	8.3	1
	H2OI80DUB	80	7.4	8.0	1
	H2OI115DUB	115	7.4	8.9	1
	H2OI60DEUB	60	7.4	8.3	1
	H2OI80DEUB	80	7.4	8.0	1
	H2OI115DEUB	115	7.4	8.9	1

Note: Max. Working pressure 150 psi for all capacities.





DUAL COIL UNITS



ELECTRIC BACKUP UNITS

General Information (See Installation, Operation and Maintenance Manual for complete instructions)

Model	Max. First Hour Rating Gal./Hr. @		Continuous Rating Gal./Hr. @		Max. Rec. Top Coil	Max. Rec. Bottom Coil	Min. Boiler Water Flow Through Coil	Pressure Drop Through Coil
	140° F	115° F	140° F	115° F	(Gal./Hr.)	(Gal./Hr.)	(Gal./Min.)	(Ft. Water)
SINGLE COIL								
H2OI60EUB	45.9	52.0	15.9	22.0	N/A	214	10.0	3.5
H2OI80EUB	55.9	62.0	15.9	22.0	N/A	214	10.0	3.6
H2OI115EUB	73.9	80.0	15.9	22.0	N/A	214	10.0	3.9
DUAL COIL								
H2OI60DUB	45.9	52.0	15.9	22.0	185	214	10.0	3.5
H2OI80DUB	55.9	62.0	15.9	22.0	180	214	10.0	3.6
H2OI115DUB	73.9	80.0	15.9	22.0	190	214	10.0	3.9
H2OI60DEUB	45.9	52.0	15.9	22.0	185	214	10.0	3.5
H2OI80DEUB	55.9	62.0	15.9	22.0	180	214	10.0	3.6
H2OI115DEUB	73.9	80.0	15.9	22.0	190	214	10.0	3.9

Note: All ratings are based on 180° F boiler water supply and 50° F cold water inlet. For Dual Coil units, continuous ratings shown are for the lower coil only. Specifications subject to change without notice.

Standard Equipment	**Factory installed brass drain and relief valves, welded stainless steel cold water dip tube factory installed and pressure tested, Honeywell L4080B aquastat for field installation. Removable thermal well to accept a solar control thermostat or thermistor. Dual coil units equipped with two aquastat wells which control each coil independently and built-in recirculation tapping. Units with Electric Back-Up are provided with 4" x 10" electrical box with pre-wired heating element, thermostat, and hi-limit. All electric back-up units provided with 240 volt AC, 3500 watt element.**
Options	**(E) Electric Back-Up models for supplemental heating.**
Certification/ Decoding	**H2O I 60 D E UB** I=Indirect; Capacity: 60=60 Gals. 80=80 Gals. 115=115 Gals.; D=Dual Coil; E=Electrical Back up (3500 Watts); UB=Utica Boiler C ETL CM US LISTED Intertek Conforms to UL STD 174 Certified to CAN/CSA STD C22.2 No. 110-94

Dimensions & Weights

Models	Height (Inches)	Dia. (Inches)	Shp. Wgt. (Lbs.)
SINGLE COIL			
H2OI60EUB	62.0	23.5	135
H2OI80EUB	56.0	28.0	145
H2OI115EUB	74.0	28.0	180
DUAL COIL			
H2OI60DUB	62.0	23.5	165
H2OI80DUB	56.0	28.0	175
H2OI115DUB	74.0	28.0	205
H2OI60DEUB	62.0	23.5	175
H2OI80DEUB	56.0	28.0	185
H2OI115DEUB	74.0	28.0	215

PN 240009329 Rev. 2/12

Contractor Assistance: **800.325.5479**

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UTICA BOILERS