

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

\* Radiant heat in every room





## INTRODUCING THE NEW UTICA H<sub>2</sub>O 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<sub>2</sub>O Stainless Steel Single Coil Indirect Water Heaters

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

Utica H<sub>2</sub>O Stainless Steel Storage Tanks

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

Utica H<sub>2</sub>O Stainless Steel Hydronic Buffer Tanks

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

Utica H<sub>2</sub>O Stainless Steel Single & Dual Coil Solar Water Heaters (Electric Back-Up can heat the tank if solar heat is unavailable)

Stainless steeding

STANDARD FEATURES	SIL
Capacities (Gallons)	30, 40, 40L, 50 , 60, 60L, 80 & 115
316L Stainless Steel Construction	6
Top Connections (For Easy, Neat, Clean Installation)	<b>^</b>
Stainless Steel Dip Tube	<b>₼</b>
Thermoplastic Jacket (Won't dent, scratch or corrode)	<b>₼</b>
Low Pressure Drop (Ideal For Low Mass Boilers)	<b>☆</b>
T & P Valve, Stainless Aquastat Well & Drain Valve (Factory installed-taped and doped).	6
2.25" EPS Insulation (Provides Less Than .5°F Per Hour Standby Loss)	<b>^</b>
Large Diameter, Smooth Coil Heat Exchangers - Prevent Buildup (Stainless Steel Coils Are 25 to 30' Long and 1-1/8" in Diameter)	6
Honeywell L4080B (Shipped Loose)	6
Made in the USA	6
WARRANTY	
Limited Lifetime Warranty (Residential), 5 Yr. (Commercial)	<b>₼</b>
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





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30, 40, 60, 60L, 80 & 115	T	60, 80 & 115
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<b>6</b>	N/A	<b>6</b>
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N/A	<b>(</b> )	<b>6</b>
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





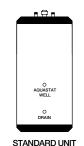


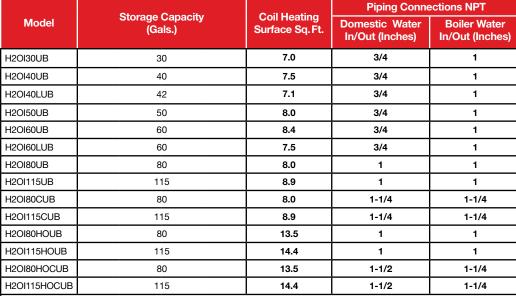


#### Utica H<sub>2</sub>O Stainless Steel Single Coil Indirect Water Heaters

HOT OUTLET 8.0
T+P VALVE BOILER RETURN
8.0
DOM. COLD INLET BOILER SUPPLY

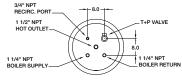
**Dimensions/Weights** 

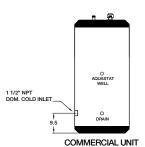




Note: Max. Working pressure 150 psi for all capacities.

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





				, -				/
	Model	Hour	First Rating 'Hr @	Rat	nuous ting 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)
	H2Ol30UB	182	242	155	215	116,200	10.0	2.7
1	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
7	H2OI115HOCUB	439	568	336	465	251,780	15.0	9.5

Dimension	ons &	Weigh	ts
Models	Height (Inches)	Dia. (Inches)	SI

Models	Height (Inches)	Dia. (Inches)	Shp. Wgt. (Lbs.)			
H2OI30UB	32	22.5	85			
H2OI40UB	42	22.5	100			
H2OI40LUB	34	26.0	100			
H2OI50UB	52	22.5	110			
H2OI60UB	2OI60UB <b>60 22.5</b>					
H2OI60LUB	44	26.5	120			
H2OI80UB	54	26.5	140			
H2OI115UB	72	26.5	175			
H2OI80CUB	54	26.5	120			
H2OI115CUB	72	26.5	175			
H2OI80HOUB	54	26.5	155			
H2OI115HOUB	72	26.5	190			
H2OI80HOCUB	54	26.5	155			
H2OI115HOCUB	72	26.5	190			

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.

Factory installed brass drain and relief valves, welded stainless steel cold water dip tube factory Equipment installed and pressure tested, Honeywell L4080B aquastat for field installation. (L) Low profile models for applications with low clearances.

(C) Commercial models with larger tappings for higher flow rates. **Options** 

(HO) High Output models available to meet greater demand.

Certification/ Decoding









C=Commercial HO=High Output 40=40 Gals. 50=50 Gals. 60=60 Gals. 80=80 Gals. 115=115 Gals.

Intertek

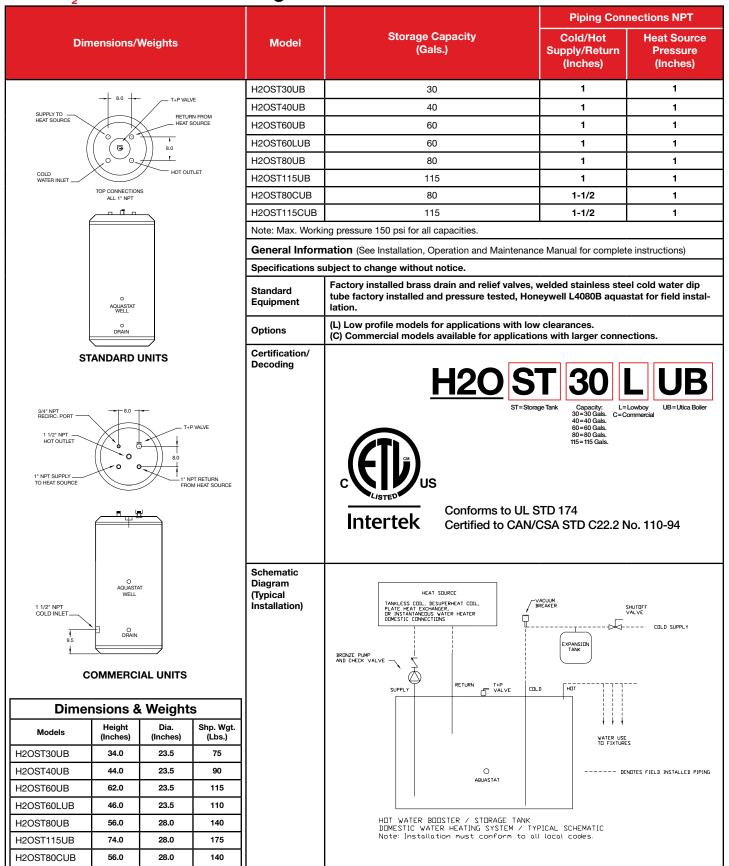
Conforms to UL STD 174 Certified to CAN/CSA STD C22.2 No. 110-94

#### Utica H<sub>3</sub>O Stainless Steel Storage Tanks

H2OST115CUB

28.0

175



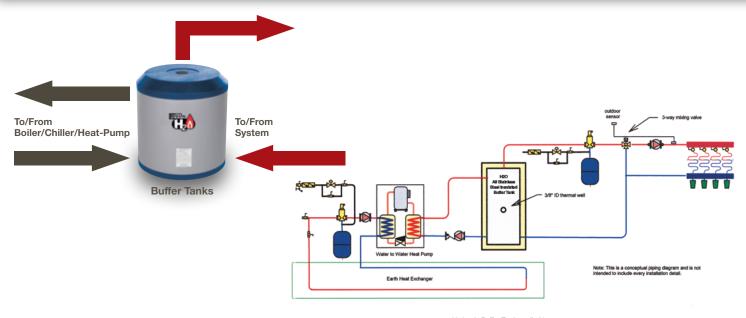
### Utica H<sub>2</sub>O Stainless Steel Buffer Tanks

Dimensions/Weights					Model	Storage Capacity (Gals.)	Piping Connections NPT (Inches)				
					H2OBT40114UB		1-1/4				
					H2OBT40112UB	40	1-1/2				
					H2OBT402UB		2				
					H2OBT60114UB		1-1/4				
					H2OBT60112UB	60	1-1/2				
					H2OBT602UB		2				
					H2OBT80112UB		1-1/4				
					H2OBT80114UB	80	1-1/2				
					H2OBT802UB		2				
<del> </del> -	D -	1			H2OBT115114UB		1-1/4				
	<del>+</del>	·			H2OBT115112UB	115	1-1/2				
	'				H2OBT1152UB		2				
					H2OBT40114WCUB		1-1/4				
					H2OBT40112WCUB	40	1-1/2				
A					H2OBT402WCUB		2				
В тн	3/8' ID HERMAL VELL	_	4 CONNE	CTIONS SHT SIDE	H2OBT60114WCUB		1-1/4				
				FT SIDE	H2OBT60112WCUB	60	1-1/2				
-	OE GRAIN VALVE	-	I UN IU	۲	H2OBT602WCUB		2				
		•			H2OBT80114WCUB		1-1/4				
<b>†</b>					H2OBT80112WCUB	80	1-1/2				
					H2OBT802WCUB		2				
					H2OBT115114WCUB		1-1/4				
					H2OBT115112WCUB	115	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 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	Options (WC) With Coil					
					Certification/						
Dime	ension	s & We	ights	<b>Y</b>	Decoding						
Model	Height A (Inches)	B (Inches)	C (Inches)	Shp. Wgt. (Lbs.)		H20 BT 40					
H2O40BT114UB						40=40 Gals. 1 60=60 Gals.	14=1-1/4" NPT WC=With Coil UB=Utica Boiler 12=1-1/2" NPT 2=2" NPT				
H2O40BT112UB	42.0	31	11	87 (97 WC)		80=80 Gals. 115=115 Gals.					
H2O40BT2UB		<u> </u>									
H2O60BT114UB											
H2O60BT112UB	44.0	31.5	11.5	115 (125 WC)							
H2O60BT2UB						//TI					
H2O80BT114UB H2O80BT112UB 54.0 H2O80BT2UB  11.5 125 (135 WC)						( <b>(-11</b> )					
						c					
						LISTED	III OTD 474				
H2O115BT114UB						Intertek Conforms to	UL STD 174 AN/CSA STD C22.2 No. 110-94				
H2O115BT112UB 72.0 61.5 11.5 160 (170 WC)						Certified to C	MIN OOM OID OZZ.Z NO. 110-94				
H2O115BT2UB											
					`L						

#### UTICA HO 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<sub>2</sub>O HYDRAULICALLY DECOUPLED



#### Hydronic Buffer Tank applied to Water source heat pump application

#### Buffer Tank Sizing - Calculating Capacity

Utica H<sub>2</sub>O 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:

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

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.

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

### Utica H<sub>2</sub>O Stainless Steel Dual and Single Coil Solar Water Heaters

Dimensions/Weights	Model		Storage		Sq. Ft.		o Coil g Surface	Bottom Coil Heating Surface Sq. Ft.	Piping Connections NPT (Inches)		
70005					SII	NGLE COIL					
TOP COIL SUPPLY TOP COIL RETURN	H2OI60EUB		6	0		N/A		8.3	1		
COLD WATER IN (0 B) O HOT WATER OUT	H2OI80EUB	80EUB 80					N/A	8.0	1		
BOTTOM SOLAR COIL SUPPLY	H2OI115EUB		1	15		l I	N/A	8.9	1		
COIL RETURN					D	UAL COIL					
	H2OI60DUB		6	0		7.4		8.3	1		
	H2OI80DUB	80			7.4		8.0	1			
TOP COIL 3/6" ID THEFMAL WELL 1/2" NET RECIRC. RETURN PORT	H2OI115DUB		1	15			7.4	8.9	1		
1 4 1	H2OI60DEUB		6	0			7.4	8.3	1		
TOP HEATING COIL FOR BACKUP	H2OI80DEUB		8	0			7.4	8.0	1		
BOTTOM COIL 3/8" ID THERMAL WELL	H2OI115DEUB		11	15			7.4	8.9	1		
BOTTOM HEATING COIL FOR SOLAR	Note: Max. Work	king pressi	ure 150 ps	i for all ca	oacities.						
FOR SOLAR	General Infor	mation (	See Install	ation, Ope	ration and	Maintenanc	e Manual for c	omplete instruction	ns)		
DUAL COIL UNITS	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)		
$\left(\left(\begin{array}{c} \circ \\ \bullet \end{array}\right)\right)$	SINGLE COIL										
0 0 r 1.5	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										
4" X 10" ELECTRICAL BOX	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		
3/8° ID	H2OI115DUB	73.9	80.0	15.9	22.0	190	214	10.0	3.9		
THERMAL WELL DRAIN VALVE	H2OI60DEUB	45.9	52.0	15.9	22.0	185	214	10.0	3.5		
Droug VALVE	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		
ELECTRIC BACKUP UNITS	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.								•		
Dimensions & Weights  Models Height (Inches) Dia. (Inches) Wgt. (Lbs.)	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.									
SINGLE COIL	Options	(E) Elect	ric Back-	Up model	s for supp	lemental he	eating.				
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	Certification/ Decoding			US	<u>H2</u>	20 I	Gapacity: 60=60 Gals. 80=90 Gals. 115=115 Gals.	D=Dual Coil E=Electric Back us (3500 We	р		
H2OI60DEUB 62.0 23.5 175 H2OI80DEUB 56.0 28.0 185 H2OI115DEUB 74.0 28.0 215		In	terte	ek (		s to UL S to CAN/0		22.2 No. 110-9 <sup>2</sup>	1		

PN 240009329 Rev. 11/13





