

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





THE UTICA H₂O 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 H₂O Stainless Steel Single Coil Indirect Water Heaters

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

Utica H₂O Stainless Steel Storage Tanks

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

Utica H₂O Stainless Steel Hydronic Buffer Tanks

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

Utica H₂O Stainless Steel Single & Dual Coil Solar Water Heaters

(Optional Electric Back-Up can heat the tank if solar heat is unavailable)

Stainless Steel Indirect.

STANDARD FEATURES	Sir. 2	
Capacities (Gallons)	30, 40, 40L, 50 , 60, 60L, 80, 85* & 115	3
316L Stainless Steel Construction	^	_
Top Connections (For Easy, Neat, Clean Installation)	^	
Welded Stainless Steel Dip Tube (Factory installed)	^	
Thermoplastic Jacket (Won't dent, scratch or corrode)	^	
Low Pressure Drop (Ideal For Low Mass Boilers)	^	
Magnesium Anode Rod	^	
T & P Valve (Factory installed except on 85 & 115XHOC)	^	
Aquastat Well & Drain Valve Provided	^	
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	
Extra High Output	85 & 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	

^{*}Only offered in Extra High Output models.





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dess	Stainles Sta	Stainless Steel at Control of the ater
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5	6	Ø Mo
0, 40, 60, 60L, 80 & 115	22, 40, 60, 80 & 115	60, 80 & 115
6	^	^
6	^	^
6	N/A	^
^	^	^
6	^	^
N/A	N/A	N/A
6		^
6	^	^
6	^	^
N/A	N/A*	^
^	N/A	6
6	^	6
6	N/A	N/A
N/A	^	^
60L Capacities	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	60, 80 & 115 Capacities
80 & 115 Capacities (1-1/2")	40, 60, 80 & 115 Capacities (1-1/4", 1-1/2", 2") 22 Capacity (1-1/4" only)	N/A
N/A	22, 40, 60, 80 & 115 Capacities	Standard

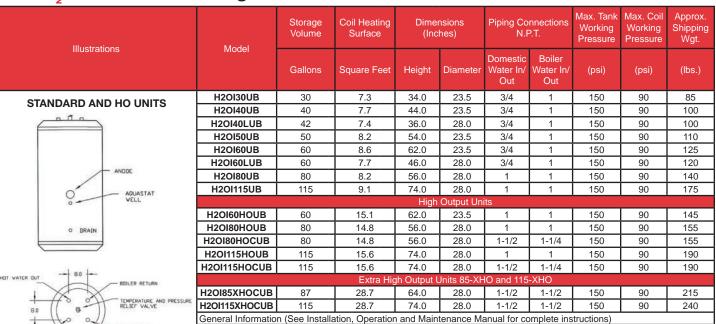




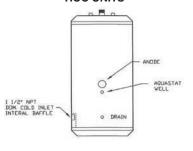


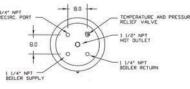


Utica H₂O Stainless Steel Single Coil Indirect Water Heaters

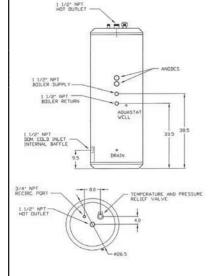


HOC UNITS





XHOC EXTRA HIGH OUTPUT UNITS



Model	Max. First I	Hour Rating	Continuo	ous Rating	Boiler Output Needed	Boiler Water Flow Through Coil	Pressure Drop Through Coil			
	Gal./l	Hr. @	Gal./	Hr. @	(BTU/Hr)	(Gal./Min.)	(Ft.			
	140° F	115° F	140° F	115° F	(610/01)	(Gal./Min.)	Water)			
H2OI30UB	202	269	175	242	131,250	14.0	5.3			
H2OI40UB	221	292	185	256	138,670	14.0	5.7			
H2OI40LUB	212	251	176	215	132,000	14.0	5.3			
H2OI50UB	223	291	178	246	133,280	14.0	6.0			
H2OI60UB	262	342	208	288	155,700	14.0	6.2			
H2OI60LUB	239	310	185	256	138,570	14.0	5.7			
H2OI80UB	271	248	199	276	149,390	14.0	6.0			
H2OI115UB	324	409	221	306	165,750	14.0	6.6			
		High	Output Units	s 60-HO, 80-l	HO, and 115-HO					
H2OI60HOUB	406	541	352	478	263,600	14.0	10.1			
H2OI80HOUB	418	551	346	479	259,640	14.0	9.9			
H2OI80HOCUB	442	584	370	512	277,070	21.0	10.5			
H2OI15HOUB	467	607	364	504	273,100	14.0	15.8			
H2OI115HOCUB	479	623	376	520	281,800	21.0	16.7			
		Extra	High Outpu	t Units 85-XF	O and 115-XHO					
H2OI85XHOCUB	738	992	660	914	495,000	28.0	13.0			
H2OI115XHOCUB	763	1017	660	914	495,000	28.0	13.0			
Note: All ratings ar	Note: All ratings are based on 200° F boiler water supply and 50° F cold water inlet									

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

Certification/ Decoding

	(L) Low profile models for applications with low clearances.
Equipmer	& P and drain valve, welded stainless steel cold water dip tube factory installed and pressure tested, Honeywell L4080B aquastat shipped loose for field installation.
Standard	Smooth stainless steel coil, magnesium anode rod, factory installed stainless steel aquastat well, T

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

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

(XHO) Extra High Output models.











Capacity: L-Capacity: 03-30 Gals. Ca-Commercial 40-40 Gals. HO=High Output 50-50 Gals. 80-80 Gals. 80-80 Gals. 875-87 Gals. 85=87 Gals. 115=115 Gals

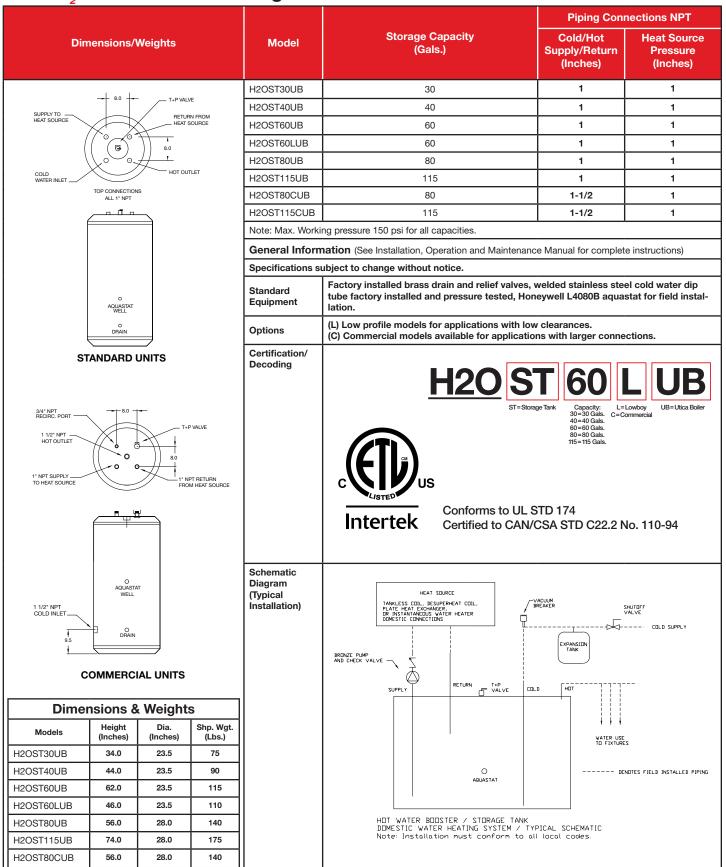
Conforms to UL STD 174 Certified to CAN/CSA STD C22.2 No. 110-94

Utica H₂O Stainless Steel Storage Tanks

H2OST115CUB

28.0

175



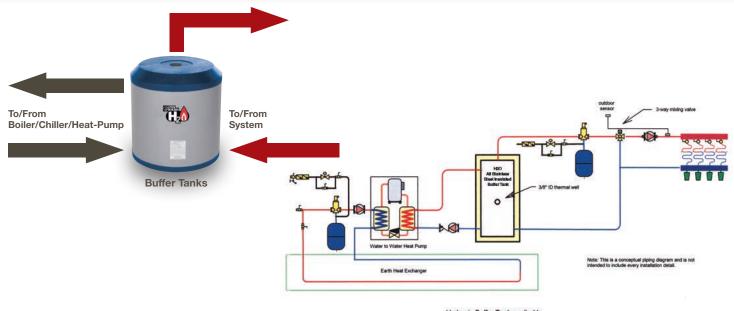
Utica H₂O Stainless Steel Buffer Tanks

Dimensions/Weights				Model	Storage Capacity (Gals.)	Piping Connections NPT (Inches)	
					H2OBT22114UB	22	1-1/4
					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
L	n	J			H2OBT80114UB	80	1-1/2
]				H2OBT802UB		2
	#	1			H2OBT115114UB		1-1/4
					H2OBT115112UB	115	1-1/2
1					H2OBT1152UB		2
					H2OBT40114WCUB		1-1/4
A	•				H2OBT40112WCUB	40	1-1/2
В	3/8' ID HERMAL WELL		4 CONNE		H2OBT402WCUB		2
			2 ON LE	GHT SIDE IFT SIDE	H2OBT60114WCUB		1-1/4
	O	_	1 ON TO	P	H2OBT60112WCUB	60	1-1/2
C	VALVE	ļ			H2OBT602WCUB		2
					H2OBT80114WCUB		1-1/4
					H2OBT80112WCUB	80	1-1/2
					H2OBT802WCUB		2
					H2OBT115114WCUB		1-1/4
					H2OBT115112WCUB	115	1-1/2
					H2OBT1152WCUB		2
					Note: Max. Working pre	essure 60 psi for all capacities.	•
					General Informatio	n (See Installation, Operation and Mainten	ance Manual for complete instructions)
					Specifications subject	t to change without notice.	
					Standard Equipment	Factory installed brass drain and relief water dip tube factory installed and preaquastat for field installation.	
Dim	ension	- 2. Wo	iahte		Options	(WC) With Coil	
l nim			Ť	1	Certification/		
Model	Height A (Inches)	B (Inches)	C (Inches)	Shp. Wgt. (Lbs.)	Decoding	H2O BT 40	114 WC UB
H2O22BT114UB	24.5	15.0	8.0	35 (45 WC)		BT=Buffer Tank Capacity: 1 22=22 Gals. 1	114=1-1/4" NPT WC=With Coil UB=Utica Boiler
H2O40BT114UB				87		40=40 Gals. 60=60 Gals. 80=80 Gals.	2=2"NPT
H2O40BT112UB	42.0	29.0	9.0	(97 WC)			
H2O40BT2UB							
H2O60BT114UB				115		(/TI)	
H2O60BT112UB	42.0	29.5	9.5	(125 WC)			
H2O60BT2UB						c \\	
H2O80BT114UB	E0.0	20 F	0.5	125		LISTED	OTD 474
H2O80BT112UB	52.0	39.5	9.5	(135 WC)		Intertek Conforms to	
H2O80BT2UB						Certified to C	CAN/CSA STD C22.2 No. 110-94
H2O115BT114UB	70.0	E0 E	0.5	160			
H2O115BT112UB H2O115BT2UB	72.0	59.5	9.5	(170 WC)			

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

H₂O HYDRAULICALLY DECOUPLED



Hydronic Buffer Tank applied to Water source heat pump application

Buffer Tank Sizing - Calculating Capacity

Utica H₂O 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:



Tx (Q heat input - Q min. heat load) Tank temp. rise x 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.

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

Dimensions/Weights	Model	:		Capacity als.)	,	Heating	o Coil g Surface _J . Ft.	Bottom Coil Heating Surface Sq. Ft.	Piping Connections NPT (Inches)		
					SIN	NGLE COIL					
	H2OI60EUB		6	0		1	N/A	8.3	1		
T+P VALVE TOP COIL RETURN	H2OI80EUB		8	30		N/A		8.0	1		
HOT WATER OUT	H2OI115EUB		1	15		1	N/A	8.9	1		
BOTTOM SOLAR COIL SUPPLY		DUAL COIL									
COLSOFFER	H2OI60DUB		6	60			7.4	8.3	1		
$\overline{}$	H2OI80DUB		8	80			7.4	8.0	1		
	H2OI115DUB		1	15			7.4	8.9	1		
TOP COIL 3/8" ID THERMAL WELL	H2OI60DEUB		6	60			7.4	8.3	1		
1/2" NPT RECIRC. RETURN PORT	H2OI80DEUB		8	80			7.4	8.0	1		
TOP HEATING COIL FOR BACKUP	H2OI115DEUB		1	15		·	7.4	8.9	1		
BOTTOM COIL 3/8* ID THERMAL WELL	Note: Max. World	king press	ure 150 ps	i for all cap	oacities.						
	General Infor	mation (See Install	ation, Ope	ration and	Maintenanc	e Manual for c	omplete instruction	ns)		
BOTTOM HEATING COIL FOR SOLAR COIL UNITS	Model	Hour	First Rating Hr. @	Rat	nuous iing 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)		
		140 F				SINGLE COIL					
		140 F			SIN	NGLE COIL					
	H2OI60EUB	45.9	52.0	15.9	SIN 22.0	NGLE COIL N/A	214	10.0	3.5		
	H2OI60EUB H2OI80EUB		1	15.9 15.9			214 214	10.0 10.0	3.5 3.6		
000		45.9	52.0		22.0	N/A					
1.5	H2OI80EUB	45.9 55.9	52.0 62.0	15.9	22.0 22.0 22.0	N/A N/A	214	10.0	3.6		
1.5	H2OI80EUB	45.9 55.9	52.0 62.0	15.9	22.0 22.0 22.0	N/A N/A N/A	214	10.0	3.6		
T.5	H2OI80EUB H2OI115EUB	45.9 55.9 73.9	52.0 62.0 80.0	15.9 15.9	22.0 22.0 22.0	N/A N/A N/A UAL COIL	214 214	10.0	3.6		
1.5	H2OI80EUB H2OI115EUB H2OI60DUB	45.9 55.9 73.9	52.0 62.0 80.0	15.9 15.9	22.0 22.0 22.0 D	N/A N/A N/A UAL COIL 185	214 214 214	10.0	3.6 3.9 3.5		
1.5	H2OI80EUB H2OI115EUB H2OI60DUB H2OI80DUB	45.9 55.9 73.9 45.9 55.9	52.0 62.0 80.0 52.0 62.0	15.9 15.9 15.9	22.0 22.0 22.0 22.0 22.0	N/A N/A N/A UAL COIL 185 180	214 214 214 214 214	10.0 10.0 10.0	3.6 3.9 3.5 3.6		
1.5	H2OI80EUB H2OI115EUB H2OI60DUB H2OI80DUB H2OI115DUB	45.9 55.9 73.9 45.9 55.9 73.9	52.0 62.0 80.0 52.0 62.0 80.0	15.9 15.9 15.9 15.9 15.9	22.0 22.0 22.0 22.0 22.0 22.0	N/A N/A N/A UAL COIL 185 180	214 214 214 214 214	10.0 10.0 10.0 10.0 10.0	3.6 3.9 3.5 3.6 3.9		
1.5 F'X 19" ELECTRICAL BOX	H2OI80EUB H2OI115EUB H2OI60DUB H2OI80DUB H2OI115DUB H2OI60DEUB	45.9 55.9 73.9 45.9 55.9 73.9 45.9	52.0 62.0 80.0 52.0 62.0 80.0 52.0	15.9 15.9 15.9 15.9 15.9 15.9	22.0 22.0 22.0 22.0 22.0 22.0 22.0	N/A N/A N/A UAL COIL 185 180 190	214 214 214 214 214 214 214	10.0 10.0 10.0 10.0 10.0	3.6 3.9 3.5 3.6 3.9 3.5		

ELECTRIC BACKUP UNITS

Dimensions & Weights								
Models	Height (Inches)							
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					

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 Standard equipped with two aquastat wells which control each coil independently and built-in recircula-Equipment tion 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











Intertek

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



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