

# Combo System Appliance Selection Worksheet

## COMBO SYSTEM HWT/HEATING APPLIANCE SELECTION WORKSHEET

### Dwelling Heat Loss

Heat loss from an acceptable Method  
(See Combo Guidelines, Section 1.2)

btu/hr [A]

### Domestic Demand

Minimum domestic demand (Use Table 1-HUD-FHA below):

Number of bathrooms a  
Number of bedrooms b  
Storage, gallons c  
**1st hour draw (a+b+c) =**  Gal [B]

### Water Heater 1st Hour Recovery

1. Domestic 1st hour draw [B] minus [selected storage capacity X 0.8] = Domestic Recovery Required

Step 1-1: [selected storage capacity X 0.8] =  x 0.8 =

Step 1-2:  -  =  [C]  
1st hour draw [B] [selected storage capacity X 0.8] Domestic Recovery Required

2. Required 1st hour Btu/Hr Recovery

X 830 =  [D]  
Domestic Recovery Required Required 1st hour Btu/hr Recovery

### Water Heater Capacity for Heating Use

X  =  [E]  
Water Heater Btu/hr INPUT Efficiency Water heater Btu/hr OUTPUT

[E] -  [D] =  [F]  
Water heater Btu/hr OUTPUT Required 1st hour Btu/hr Recovery Btu/hr OUTPUT Available

Available Output MUST be equal to or greater than dwelling heat loss above: [F] ≥ [A]

### Water Heater Appliance Selection

Manufacturer

Model

Rated Btu/hr INPUT

Rated Btu/hr OUTPUT

Water Heater Temperature Setting

Water Heater Temperature Setting shall be set 10°F higher than Fan Coil's calculated E.W.T.

### ASHRAE Table 1 HUD-FHA: Minimum Water Heater Capacities for One & Two-Family Living Units

Number of Bathrooms	1 to 1.5			2 to 2.5				3 to 3.5			
Number of Bedrooms	1	2	3	2	3	4	5	3	4	5	6
Storage, gallons	20	30	30	30	40	40	50	40	50	50	50
1000 Btu/hr. input	27	36	36	36	36	38	47	38	38	47	50
1 <sup>st</sup> hour draw, gallons	43	60	60	60	70	72	90	72	82	90	92
Recovery, gallons/hour	23	30	30	30	30	32	40	32	32	40	42