# **TORUS 4000 VERTICAL**

**Category II or Category IV Appliance** 

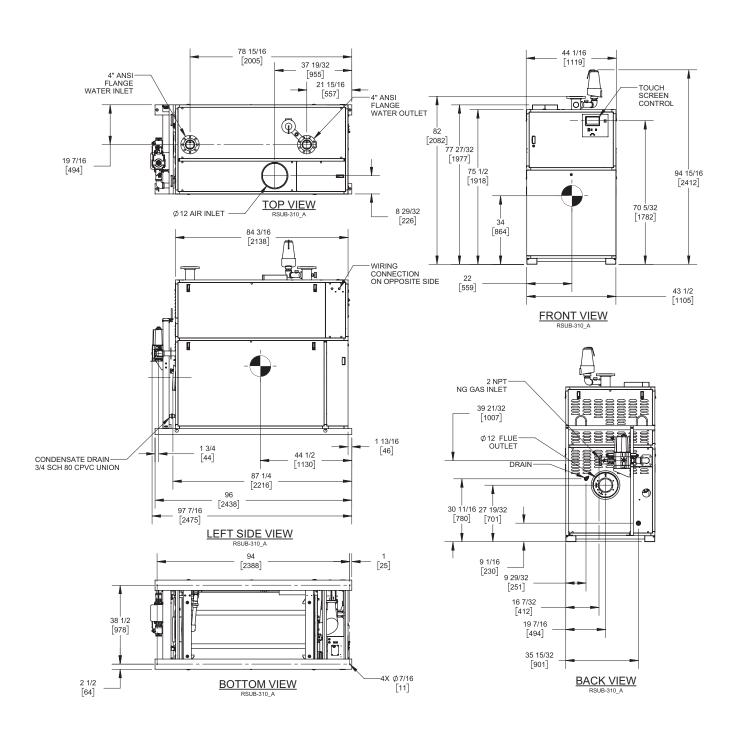
(see Installation and Operation Manual for venting information)

#### **CODE OPTIONS**

CSD-1

FIRMWARE W/REMOTE TEST MANUAL RESET LWCO

## **INDOOR UNIT**



#### Notes:

- 1. Dimensions are approximate and should not be used to "rough-in" equipment.
- 2. Dimensions are subject to change without notice.
- 3. All dimensions are in inches (mm).
- Symbol indicates center of gravity.

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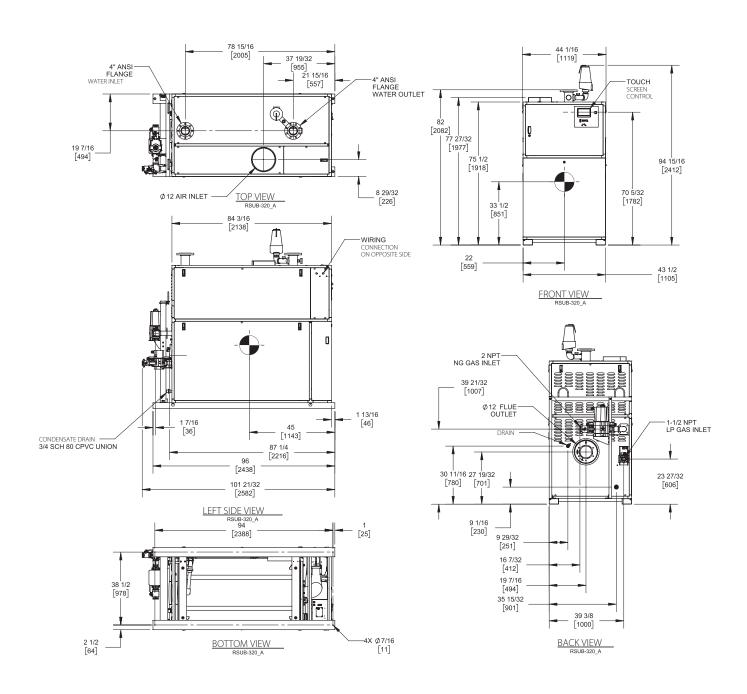
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#### **CODE OPTIONS**

CSD-1

FIRMWARE W/REMOTE TEST MANUAL RESET LWCO

## **DUAL FUEL UNIT**



#### Notes:

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#### **BOILER CERTIFIED RATINGS & CAPACITIES**

Fuel Type	Natural/Propane Gas	Boiler FLA	19.9*
Input BTU/hr.	4,000,000 / 1172kW	Boiler HP	116.52
Output BTU/hr.	3,900,000 / 1143 kW	Min. Gas Pressure Required	4" W.C.
Electrical Requirements	230 VAC/60 Hz/3PH	Max. Gas Pressure Allowed	14" W.C.
	·	Operating Weight	2866 lbs / 1300 kg

#### **BOILER TRIM & CONTROLS**

	D 1400	AL 0 1- 1		
Main Gas Valve	Dungs MBC	Air Switch	Huba	
Firing Valve	2" Apollo	Flow Switch	SIKA	
Ignition Control	Fenwal	Blocked Flue Switch	Cleveland NS2	
Operating Control HeatNet®		Blower Motor	Ametek	
High Limit	Jumo	L.W.C.O.	800	
Main Ball Valve	2" Apollo	Relief Valve (WB)	1" x 1 1/2" set @ 50 psi	
Pump contactor strongly recommended	for water heater applications.	Relief Valve (WW)	1 1/2" x 1 1/2" set @ 125 psi	

#### A.S.M.E.

ASME Sect IV Fire Side	402.93 Sq. Ft. / 37.43 Sq. M.	Design Data	Max. 160 psig & 210°F
Htg Surface		Water Volume	41.3 gal. / 156.3 Liters
ASME Sect IV Water Side	371.25 Sq. Ft. / 34.49 Sq. M.	pH Level	6.5-8.5
Htg Surface			

<sup>\*</sup> Add circulator amps.

#### **BOILER TEMPERATURE RISE / PRESSURE DROP (Based on Full Input)**

	20°F /	11.1°C		30°F / 16.7°C			40°F / 22.2°C			50°F / 27.8°C				60°F / 33.3°C					
	ow ate		sure op		ow ite	Pres Dr	sure op	Flo Ra	ow ite		sure	Flo Ra			sure	Flo Ra			sure op
GPM	L/s	Ft	kPa	GPM	L/s	Ft	kPa	GPM	L/s	Ft	kPa	GPM	L/s	Ft	kPa	GPM	L/s	Ft	kPa
390.2	24.6	19.9	59.6	260.1	16.4	10.1	30.2	195.1	12.3	6.5	19.3	156.1	9.8	4.7	14.0	130.1	8.2	3.7	10.9

Flow GPI	M (Boiler)	Temp. Rise (°	°F) (Boiler**)	Vent Length	n (Equiv. Ft.)	Air Inlet Length (Equiv. Ft.)		
Min	Max	Min	Max	Min	Max	Min	Max	
130.1	390.2	20	60	12	160	0	160	

<sup>\*\*</sup> Min/Max delta t reflects boiler operation at full input. For applications requiring operation above/below these parameters please consult factory.

#### WATER HEATER HOURLY RECOVERY CAPACITY (GPH & LPH)

40°F	22°C	60°F	33°C	80°F	44°C	100°F	56°C	120°F	67°C	140°F	78°C
11765	44471	7843	29647	5882	22235	4706	17788	3922	14824	3361	12706

	Water Heater Min Flow Rates							
	Normal (4	to 12) gpg		Hard (12 to 15) gpg				
Flow	Rate	Pressure Drop		Flow	Rate	Pressure Drop		
gpm	L/s	Ft	kPa	gpm	L/s	Ft	kPa	
280.0	6.2	11.4	34.1	372.0	8.3	18.4	55.0	

REP FIRM	
SUBMITTED BY	
JOB NAME	
ARCHITECT	
ENGINEER	
CONTRACTOR	
DATE	

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