

# TORUS 1500 VERTICAL

## Category II or Category IV Appliance

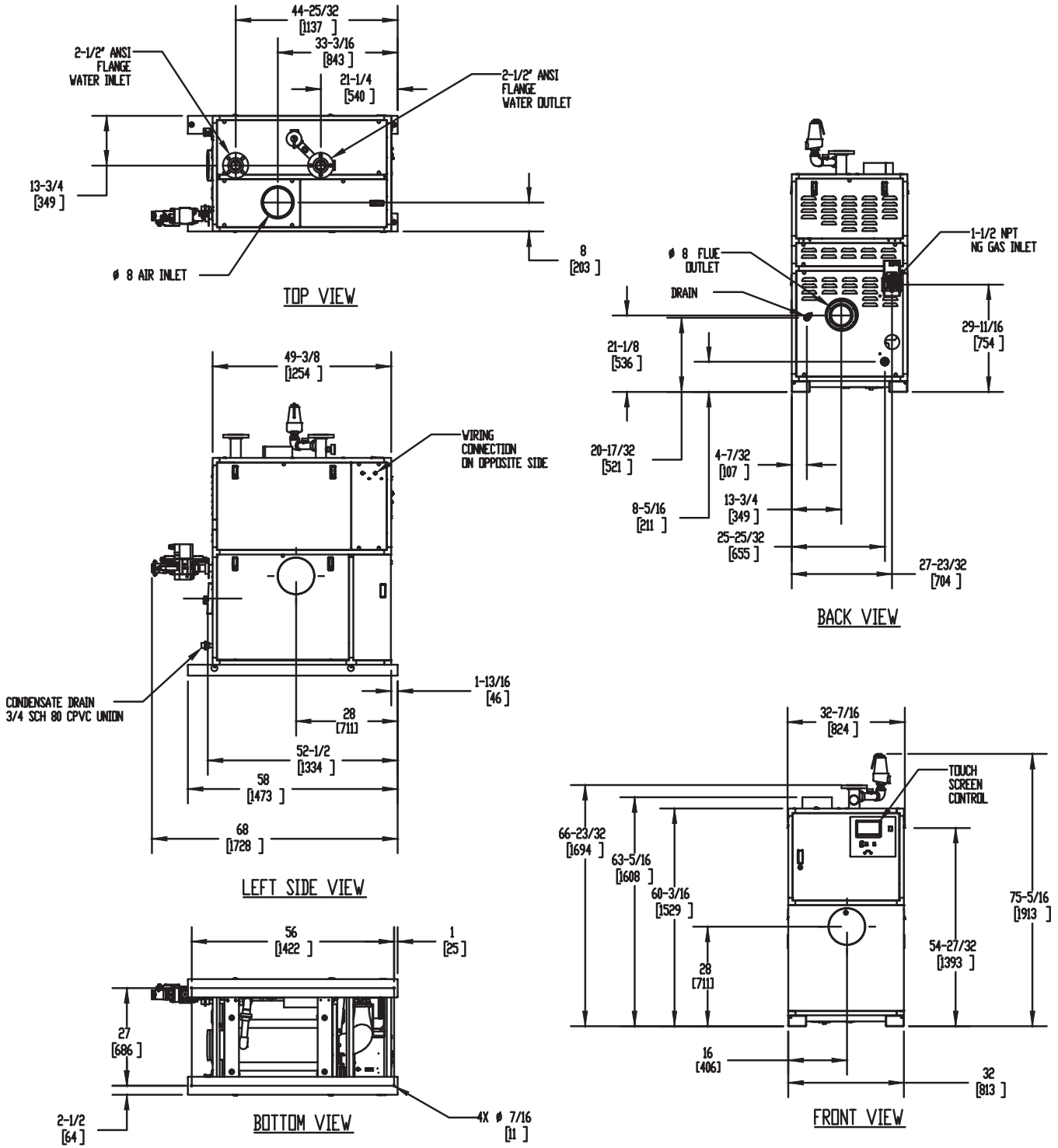
(see Installation and Operation Manual for venting information)

### 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).
4. Symbol indicates center of gravity.

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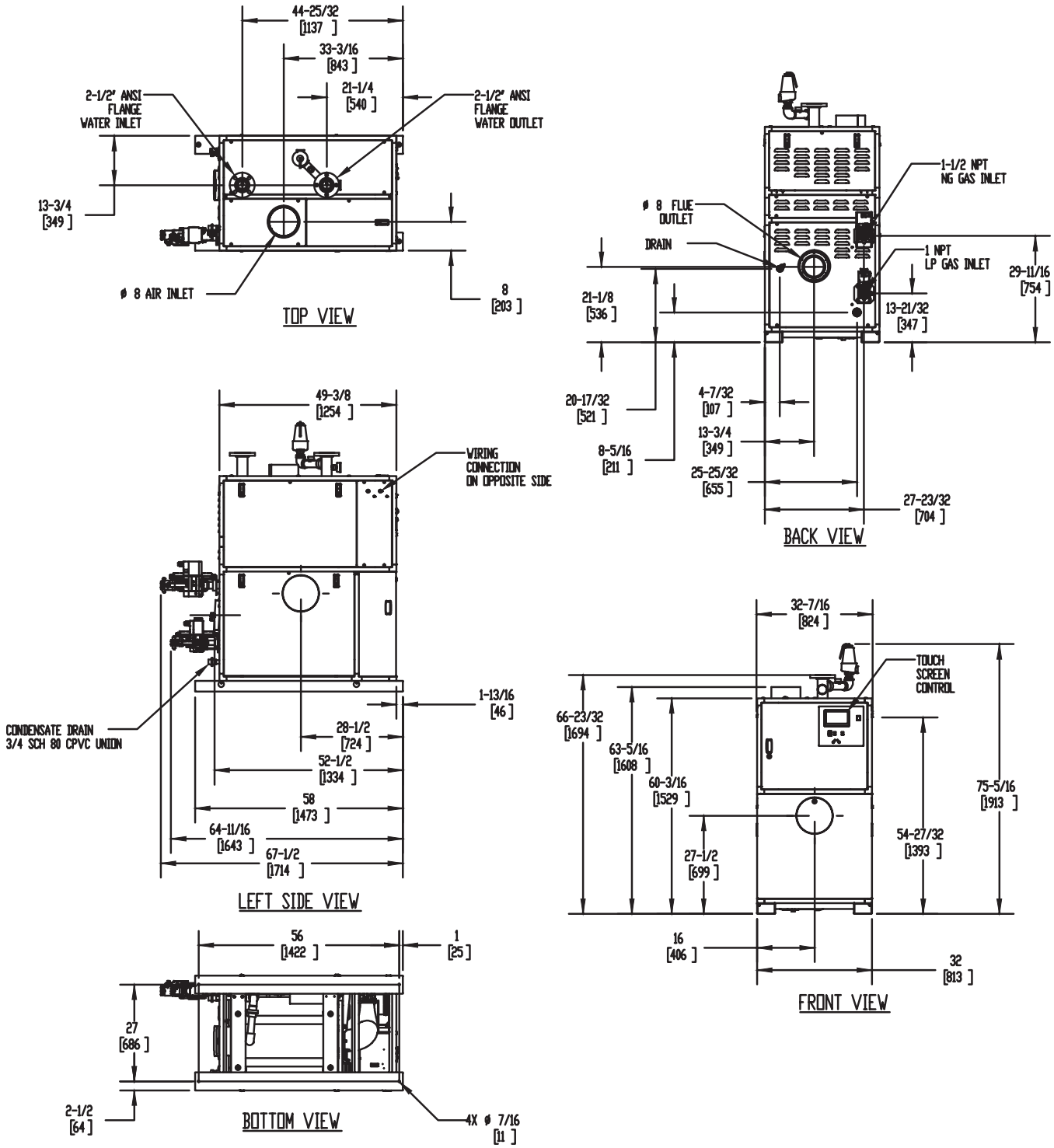
(see Installation and Operation Manual for venting information)

## CODE OPTIONS

CSD-1

FIRMWARE W/REMOTE TEST  
MANUAL RESET LWCO

## DUAL FUEL UNIT



### Notes:

1. Dimensions are approximate and should not be used to "rough-in" equipment.
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## BOILER CERTIFIED RATINGS & CAPACITIES

<b>Fuel Type</b>	Natural/Propane Gas	<b>Boiler FLA</b>	21.0*
<b>Input BTU/hr.</b>	1,500,000 / 440 kW	<b>Boiler HP</b>	43.25
<b>Output BTU/hr.</b>	1,447,500 / 424 kW	<b>Min. Gas Pressure Required</b>	4"W.C.
<b>Electrical Requirements</b>	120 VAC/60 Hz/1PH	<b>Max. Gas Pressure Allowed</b>	14"W.C.
		<b>Operating Weight</b>	1183 lbs / 537 kg

## BOILER TRIM & CONTROLS

<b>Main Gas Valve</b>	Dungs MBC	<b>Air Switch</b>	Huba
<b>Firing Valve</b>	1" Apollo	<b>Flow Switch</b>	SIKA
<b>Ignition Control</b>	Fenwal	<b>Blocked Flue Switch</b>	Cleveland NS2
<b>Operating Control</b>	HeatNet®	<b>Blower Motor</b>	Ametek
<b>High Limit</b>	Jumo	<b>L.W.C.O.</b>	800
<b>Main Ball Valve</b>	1 1/2" Apollo	<b>Relief Valve (WB)</b>	1" x 1-1/4" set @ 50 psi
Pump contactor strongly recommended for water heater applications.		<b>Relief Valve (WW)</b>	1" x 1" set @ 125 psi

## A.S.M.E.

<b>ASME Sect IV Fire Side</b>	119.8 Sq. Ft. / 11.13 Sq. M.	<b>Design Data</b>	Max. 160 psig & 210°F
<b>Htg Surface</b>		<b>Water Volume</b>	13 gal. / 49.2 Liters
<b>ASME Sect IV Water Side</b>	111.08 Sq. Ft. / 10.32 Sq. M.	<b>pH Level</b>	6.5-8.5
<b>Htg Surface</b>			

\* 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			
Flow Rate		Pressure Drop		Flow Rate		Pressure Drop		Flow Rate		Pressure Drop		Flow Rate		Pressure Drop		Flow Rate		Pressure Drop	
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
144.8	9.1	19.8	59.1	96.5	6.1	8.8	26.3	72.4	4.6	5.0	14.9	57.9	3.7	3.5	10.4	48.3	3.0	2.6	7.8


Flow GPM (Boiler)		Temp. Rise (°F) (Boiler**)		Vent Length (Equiv. Ft.)		Air Inlet Length (Equiv. Ft.)	
Min	Max	Min	Max	Min	Max	Min	Max
48.3	144.8	20	60	8	160	0	160

\*\* 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
4367	16506	2911	11004	2183	8253	1747	6603	1456	5502	1248	4716

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
122.8	7.7	14.2	42.4	163.7	10.3	25.3	75.6

<b>REP FIRM</b>	_____	<b>TORUS 1500 VERTICAL</b>
<b>SUBMITTED BY</b>	_____	
<b>JOB NAME</b>	_____	
<b>ARCHITECT</b>	_____	
<b>ENGINEER</b>	_____	
<b>CONTRACTOR</b>	_____	
<b>DATE</b>	_____	<b>Category II or Category IV Appliance</b> (see Installation and Operation Manual for venting information)
		 <b>RELIABLE. BOLD. INNOVATIVE.</b>
		A Division of Mestek, Inc. Westfield, MA 01085 (413) 564-5515