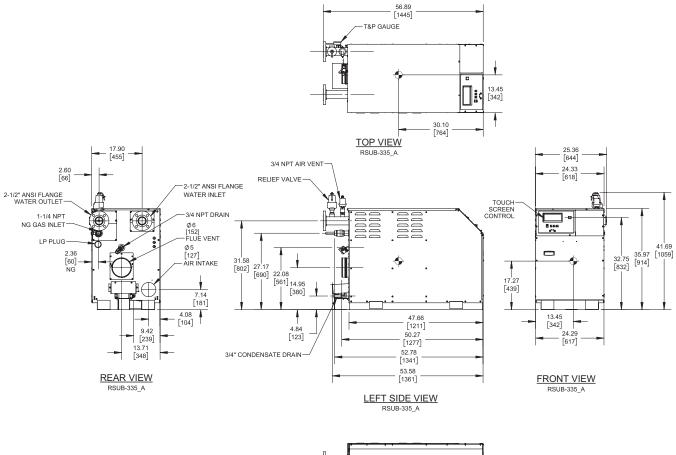
## **TORUS 1000**

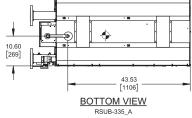
**Category II or Category IV Appliance** (see Installation and Operation Manual for venting information)

**INDOOR UNIT** 

**CODE OPTIONS** 

CSD-1 FIRMWARE W/REMOTE TEST MANUAL RESET LWCO High and Low Gas Pressure Switches





#### Notes:

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

## **BOILER CERTIFIED RATINGS & CAPACITIES**

Fuel Type	Natural/Propane Gas	Boiler FLA	12.0*
Input BTU/hr.	999,000 / 292.77 kW	Boiler HP	28.65
Output BTU/hr.	959,040 / 281.067 kW	Min. Gas Pressure Required	4"W.C.
Electrical Requirements	120 VAC/60 Hz/1PH	Max. Gas Pressure Allowed	14" W.C.
		Operating Weight	607.28 lbs / 275.46 kg

## **BOILER TRIM & CONTROLS**

Main Gas Valve	Dungs MBC	Air Switch	Huba		
Firing Valve	Apollo	Flow Switch	SIKA		
Ignition Control	Fenwal	Blocked Flue Switch	Cleveland NS2		
Operating Control	leatNet® Blower Motor		Ametek		
High Limit	Jumo	L.W.C.O.	800		
Main Ball Valve	Apollo	Relief Valve (WB)	3/4" x 1" set @ 50 psi		
Pump contactor strongly recommended for	water heater applications.	Relief Valve (WW)	1" x 1" set @ 125 psi		

## A.S.M.E.

DATE

ASME Sect IV Fire Side	75.4 Sq. Ft. / 7.00 Sq. M.	Design Data	Max. 160 psig & 210°F	
Htg Surface		Water Volume	8.1 gal. / 30.66 Liters	
ASME Sect IV Water Side	68.24 Sq. Ft. / 6.34 Sq. M.	pH Level	6.5-8.5	
Htg Surface				

\* 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			
	Flow Rate		e Drop	Flow Rate		Pressu	Pressure Drop		Flow Rate		Pressure Drop	
GPM	L/s	Ft	kPa	GPM L/s		Ft	kPa	GPM	L/s	Ft	kPa	
95.9	6.1	15.1	45.2	64.0	4.0	6.7	20.2	48.0	3.0	3.8	11.4	
Flo	Flow GPM (Boiler) Temp				Boiler**)	Vent Length (Equiv		uiv. Ft.)	Air In	let Length (Equiv. Ft.)		
Min		Max	Min	Max		Min		Max	Min		Max	
48.0		95.9	20	40		6		100	0		100	

\*\* 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℃	120°F	67°C	140°F	78°C
2908	10993	1939	7329	1454	5497	1163	4397	969	3664	831	3141

	Water Heater Min Flow Rates									
	Normal (4	to 12) gpg		Hard (12 to 15) gpg						
Flow	Flow Rate Pressure Drop				Rate	Pressure Drop				
gpm	L/s	Ft	kPa	gpm	L/s	Ft	kPa			
73.4	73.4 4.6 8.9 26.5				6.2	15.8	47.1			

REP FIRM	<b>TORUS 1000</b>
JOB NAME	Category II or Category IV Appliance (see Installation and Operation Manual for venting information)
ARCHITECT	
ENGINEER	A Division of Mestek, Inc.
CONTRACTOR	Westfield, MA 01085

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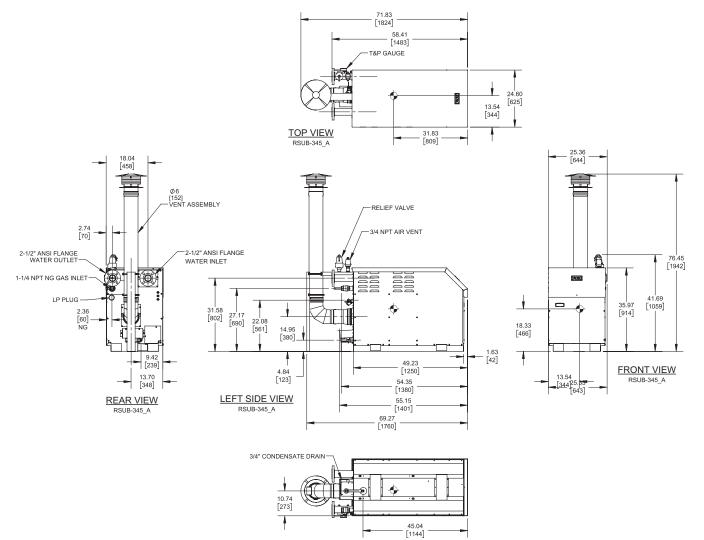
# **TORUS 1000**

**Category II or Category IV Appliance** (see Installation and Operation Manual for venting information)

**OUTDOOR UNIT** 

**CODE OPTIONS** 

FIRMWARE W/REMOTE CSD-1 TEST MANUAL RESET LWCO High and Low Gas Pressure Switches



BOTTOM VIEW RSUB-345\_A

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

## **BOILER CERTIFIED RATINGS & CAPACITIES**

Fuel Type	Natural/Propane Gas	Boiler FLA	12.0*
Input BTU/hr.	999,000 / 292.77 kW	Boiler HP	28.65
Output BTU/hr.	959,040 / 281.067 kW	Min. Gas Pressure Required	4"W.C.
Electrical Requirements	120 VAC/60 Hz/1PH	Max. Gas Pressure Allowed	14" W.C.
	·	Operating Weight	641.63 lbs / 291.04 kg

## **BOILER TRIM & CONTROLS**

Main Gas Valve	Dungs MBC	Air Switch	Huba
Firing Valve	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	Apollo	Relief Valve (WB)	3/4" x 1" set @ 50 psi
Pump contactor strongly recommended for water heater applications.		Relief Valve (WW)	1" x 1" set @ 125 psi

## A.S.M.E.

DATE

ASME Sect IV Fire Side	75.4 Sq. Ft. / 7.00 Sq. M.	Design Data	Max. 160 psig & 210°F	
Htg Surface		Water Volume	8.1 gal. / 30.66 Liters	
ASME Sect IV Water Side	68.24 Sq. Ft. / 6.34 Sq. M.	pH Level	6.5-8.5	
Htg Surface				

\* 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				
	Flow Rate		re Drop	Flow Rate		Pressure Drop			ow ate	Pres	Pressure Drop	
GPM	L/s	Ft	kPa	GPM	L/s	Ft	kPa	GPM	L/s	Ft	kPa	
95.9	6.1	15.1	45.2	64.0	4.0	6.7	20.2	48.0	3.0	3.8	11.4	
Flo	Flow GPM (Boiler) Temp			o. Rise (°F) (	Boiler**)	Vent Length (Equiv		iv. Ft.) Air Ir		nlet Length (Equiv. Ft.)		
Min		Max	Min		Max Min			Max	Min		Max	
48.0		95.9	20	40		Factory Supplied		?d		0	0	

\*\* 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
2908	10993	1939	7329	1454	5497	1163	4397	969	3664	831	3141

Water Heater Min Flow Rates									
	Normal (4 to 12) gpg				Hard (12 to 15) gpg				
Flow	Flow Rate		Pressure Drop		Flow Rate		Pressure Drop		
gpm	L/s	Ft	kPa	gpm	L/s	Ft	kPa		
73.4	4.6	8.9	26.5	97.9	6.2	15.8	47.1		

REP FIRM	<b>TORUS 1000</b>
JOB NAME	<b>Category II or Category IV Appliance</b> (see Installation and Operation Manual for venting information)
ENGINEER	A Division of Mestek, Inc.  Westfield, MA 01085

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