

# TORUS 300 DUAL FUEL

## Category II or Category IV Appliance

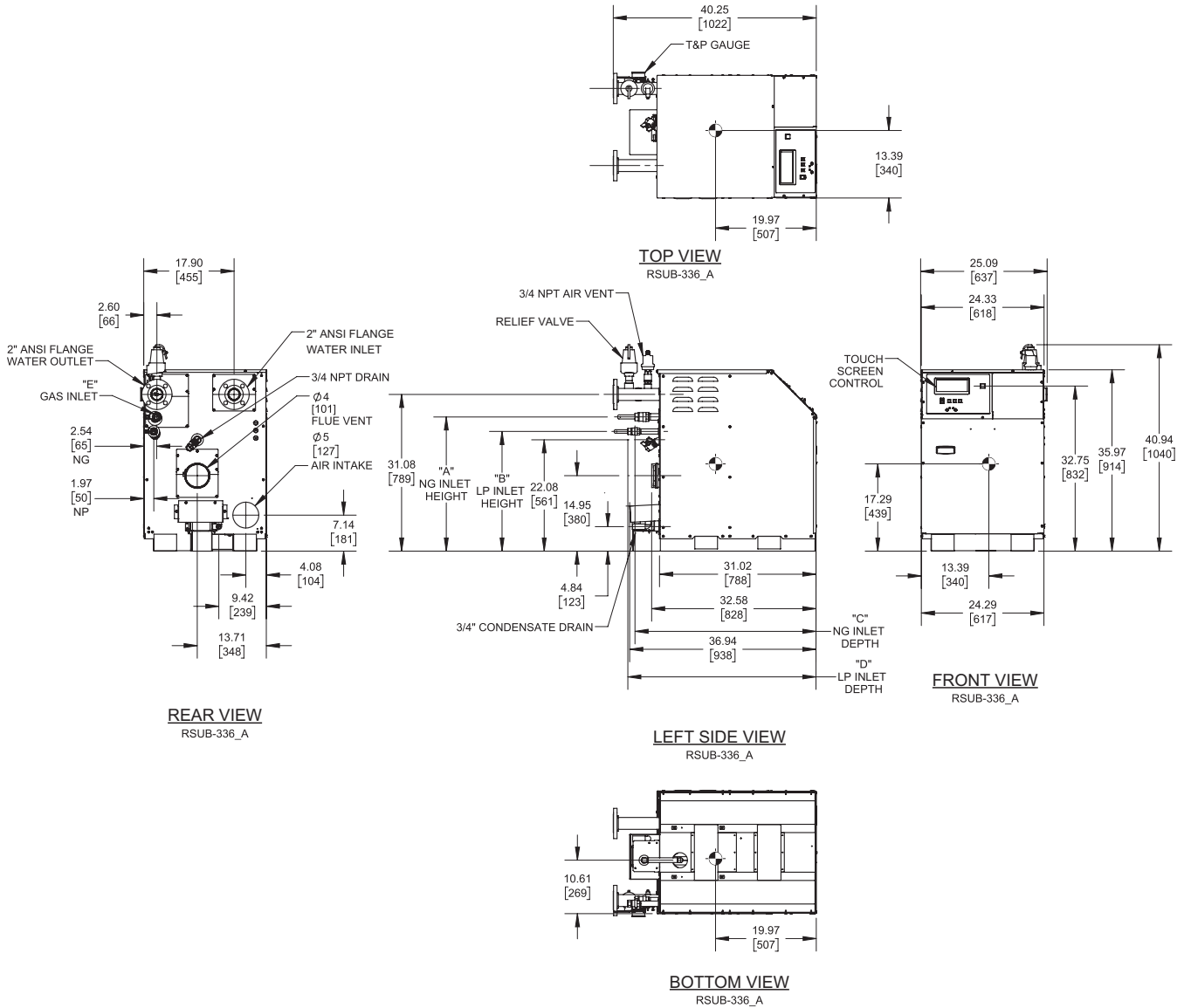
(see Installation and Operation Manual for venting information)

## CODE OPTIONS

CSD-1

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

## 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.

GAS OPTION	"A"	"B"	"C"	"D"	"E"
NG	27.17 in / 690.12 mm	-	35.88 in / 911.35 mm	-	1 NPT
LP	-	23.16 in / 588.26 mm	-	37.31 in / 947.67 mm	3/4 NPT

## BOILER CERTIFIED RATINGS & CAPACITIES

<b>Fuel Type</b>	Natural/Propane Gas	<b>Boiler FLA</b>	12.0*
<b>Input BTU/hr.</b>	300,000 / 87.92 kW	<b>Boiler HP</b>	8.69
<b>Output BTU/hr.</b>	291,000 / 85.28 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>	418.20 lbs / 189.69 kg

## BOILER TRIM & CONTROLS

<b>Main Gas Valve</b>	Dungs MBC	<b>Air Switch</b>	Huba
<b>Firing Valve</b>	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>	Apollo	<b>Relief Valve (WB)</b>	3/4" x 3/4" 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>	34.8 Sq. Ft. / 3.23 Sq. M.	<b>Design Data</b>	Max. 160 psig & 210°F
<b>Htg Surface</b>		<b>Water Volume</b>	3.8 gal. / 14.38 Liters
<b>ASME Sect IV Water Side</b>	31.5 Sq. Ft. / 2.92 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			
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
29.1	1.8	6.3	18.8	19.4	1.2	2.9	8.6	14.6	0.9	1.7	5.0
Flow GPM (Boiler)		Temp. Rise (°F) (Boiler**)		Vent Length (Equiv. Ft.)		Air Inlet Length (Equiv. Ft.)					
Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
14.6	29.1	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°C	120°F	67°C	140°F	78°C
882	3335	588	2224	441	1668	353	1334	294	1112	252	953

### 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
30.5	1.9	6.9	20.6	40.6	2.6	12.1	36.3

**REP FIRM** \_\_\_\_\_  
**SUBMITTED BY** \_\_\_\_\_  
**JOB NAME** \_\_\_\_\_  
**ARCHITECT** \_\_\_\_\_  
**ENGINEER** \_\_\_\_\_  
**CONTRACTOR** \_\_\_\_\_  
**DATE** \_\_\_\_\_

## TORUS 300 DUAL FUEL

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



A Division of Mestek, Inc.  
Westfield, MA 01085  
(833) 265-5371

# TORUS 300 DUAL FUEL

## Category II or Category IV Appliance

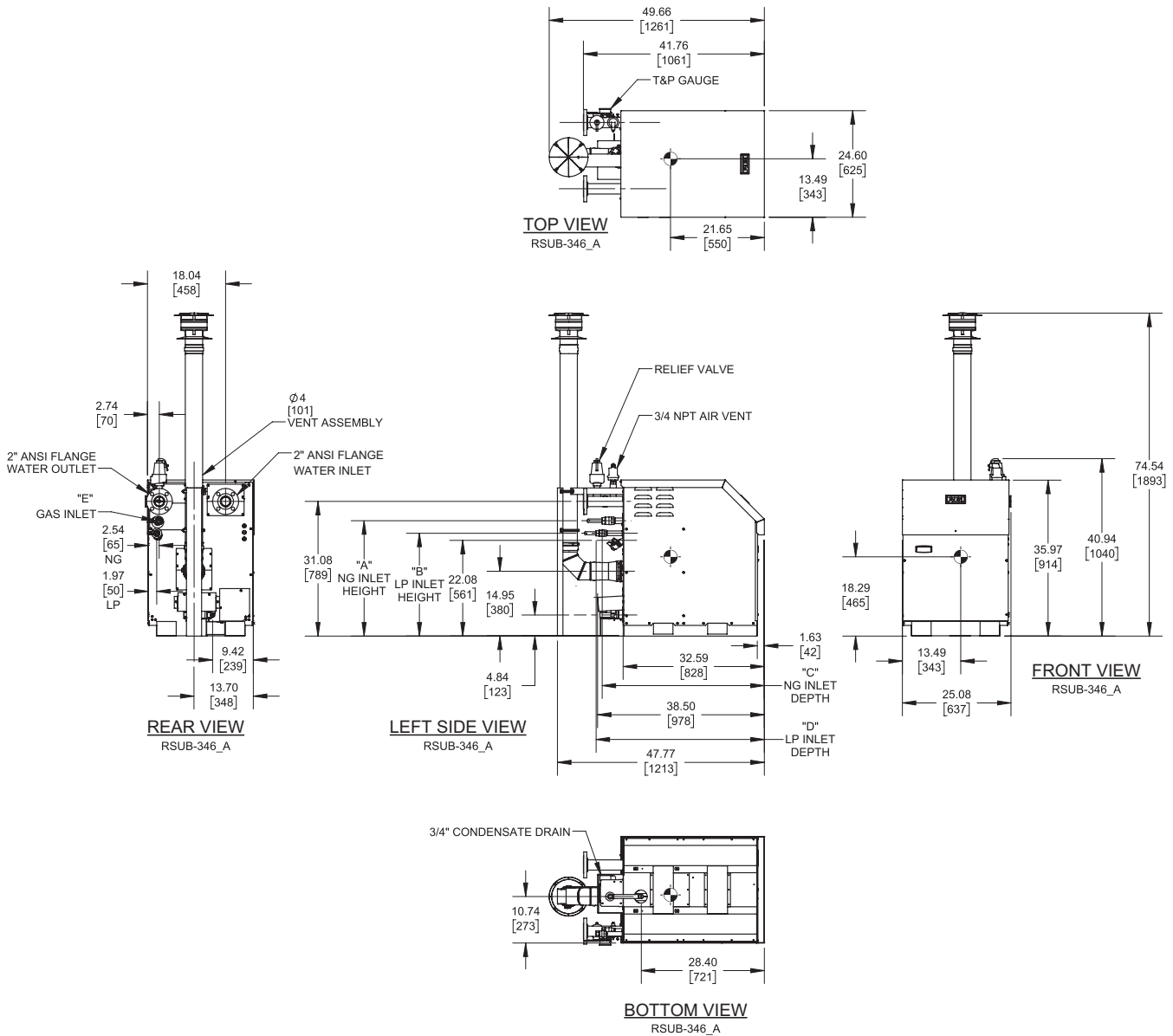
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## CODE OPTIONS


CSD-1

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

## OUTDOOR UNIT



### Notes:

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GAS OPTION	"A"	"B"	"C"	"D"	"E"
NG	26.61 in / 675.89 mm	-	37.47 in / 951.74 mm	-	1 NPT
LP	-	27.72 in / 704.09 mm	-	38.84 in / 986.54 mm	3/4 NPT

## BOILER CERTIFIED RATINGS & CAPACITIES

<b>Fuel Type</b>	Natural/Propane Gas	<b>Boiler FLA</b>	12.0*
<b>Input BTU/hr.</b>	300,000 / 87.92 kW	<b>Boiler HP</b>	8.69
<b>Output BTU/hr.</b>	291,000 / 85.28 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>	443.69 lbs / 201.25 kg

## BOILER TRIM & CONTROLS

<b>Main Gas Valve</b>	Dungs MBC	<b>Air Switch</b>	Huba
<b>Firing Valve</b>	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>	Apollo	<b>Relief Valve (WB)</b>	3/4" x 3/4" set @ 50 psi
		<b>Relief Valve (WW)</b>	1" x 1" set @ 125 psi

Pump contactor strongly recommended for water heater applications.

## A.S.M.E.

<b>ASME Sect IV Fire Side</b>	34.8 Sq. Ft. / 3.23 Sq. M.	<b>Design Data</b>	Max. 160 psig & 210°F
<b>Htg Surface</b>		<b>Water Volume</b>	3.8 gal. / 14.38 Liters
<b>ASME Sect IV Water Side</b>	31.5 Sq. Ft. / 2.92 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			
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
29.1	1.8	6.3	18.8	19.4	1.2	2.9	8.6	14.6	0.9	1.7	5.0
Flow GPM (Boiler)		Temp. Rise (°F) (Boiler**)		Vent Length (Equiv. Ft.)		Air Inlet Length (Equiv. Ft.)					
Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
14.6	29.1	20	40	Factory Supplied				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
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### 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
30.5	1.9	6.9	20.6	40.6	2.6	12.1	36.3

REP FIRM \_\_\_\_\_  
SUBMITTED BY \_\_\_\_\_  
JOB NAME \_\_\_\_\_  
ARCHITECT \_\_\_\_\_  
ENGINEER \_\_\_\_\_  
CONTRACTOR \_\_\_\_\_  
DATE \_\_\_\_\_

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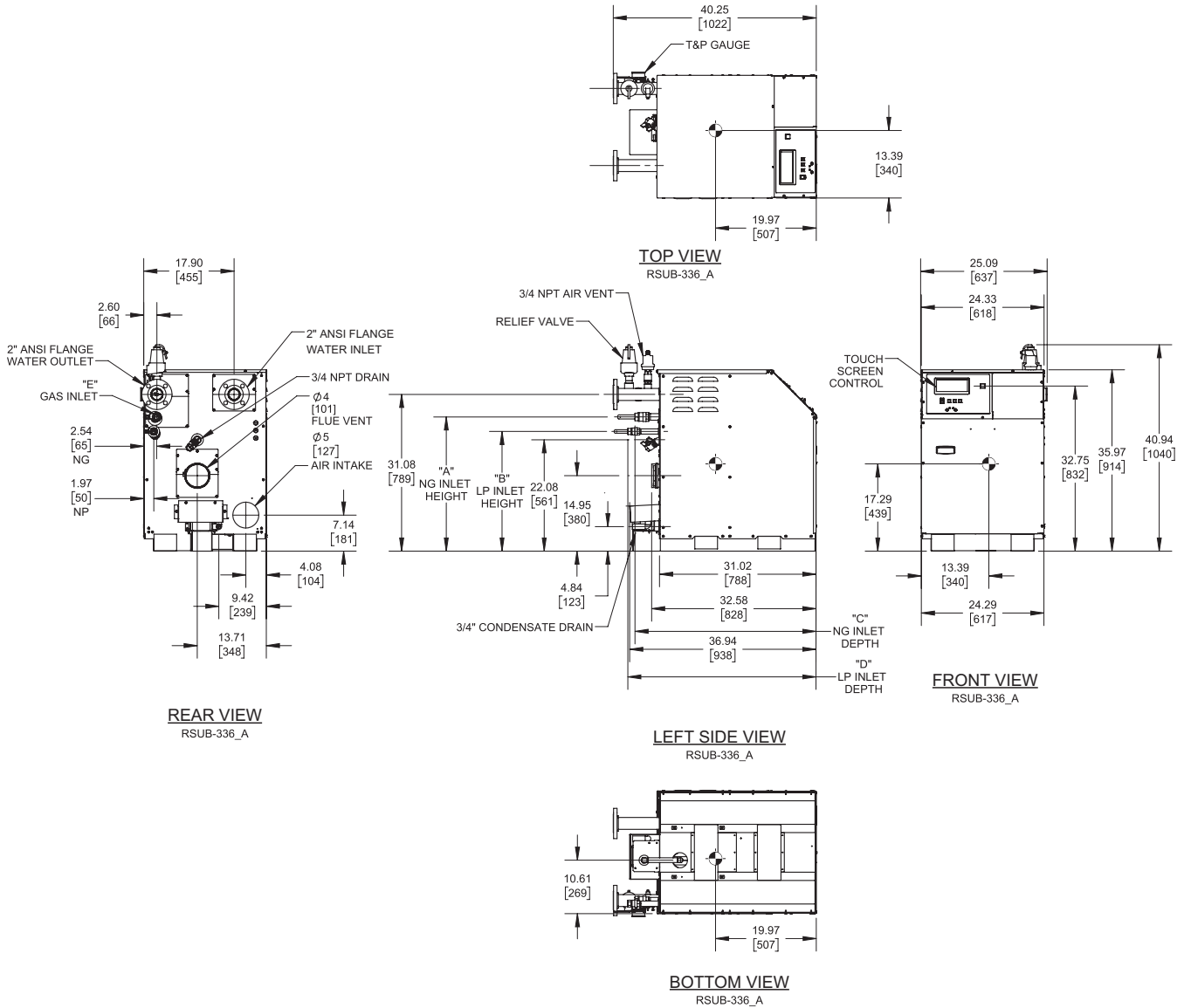
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LP	-	23.16 in / 588.26 mm	-	37.31 in / 947.67 mm	3/4 NPT

**BOILER CERTIFIED RATINGS & CAPACITIES**

<b>Fuel Type</b>	Natural/Propane Gas	<b>Boiler FLA</b>	12.0*
<b>Input BTU/hr.</b>	349,000 / 102.28 kW	<b>Boiler HP</b>	10.08
<b>Output BTU/hr.</b>	337,483 / 98.90 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>	418.20 lbs / 189.69 kg

**BOILER TRIM & CONTROLS**

<b>Main Gas Valve</b>	Dungs MBC	<b>Air Switch</b>	Huba
<b>Firing Valve</b>	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>	Apollo	<b>Relief Valve (WB)</b>	3/4" x 3/4" 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>	34.8 Sq. Ft. / 3.23 Sq. M.	<b>Design Data</b>	Max. 160 psig & 210°F
<b>Htg Surface</b>		<b>Water Volume</b>	3.8 gal. / 14.38 Liters
<b>ASME Sect IV Water Side</b>	31.5 Sq. Ft. / 2.92 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			
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
33.8	2.1	8.4	25.2	22.5	1.4	3.8	11.4	16.9	1.1	2.2	6.6
Flow GPM (Boiler)		Temp. Rise (°F) (Boiler**)		Vent Length (Equiv. Ft.)		Air Inlet Length (Equiv. Ft.)					
Min	Max	Min	Max	Min	Max	Min	Max				
16.9	33.8	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°C	120°F	67°C	140°F	78°C
1016	3840	677	2560	508	1920	406	1536	339	1280	290	1097

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
30.2	1.9	6.8	20.3	40.3	2.5	12.0	35.8

<b>REP FIRM</b>	_____	<div><b>TORUS 350 DUAL FUEL</b></div> <div><b>Category II or Category IV Appliance</b> (see Installation and Operation Manual for venting information)</div> <div> <b>RELIABLE. BOLD. INNOVATIVE.</b></div> <div>A Division of Mestek, Inc. Westfield, MA 01085 (833) 265-5371</div>
<b>SUBMITTED BY</b>	_____	
<b>JOB NAME</b>	_____	
<b>ARCHITECT</b>	_____	
<b>ENGINEER</b>	_____	
<b>CONTRACTOR</b>	_____	
<b>DATE</b>	_____	

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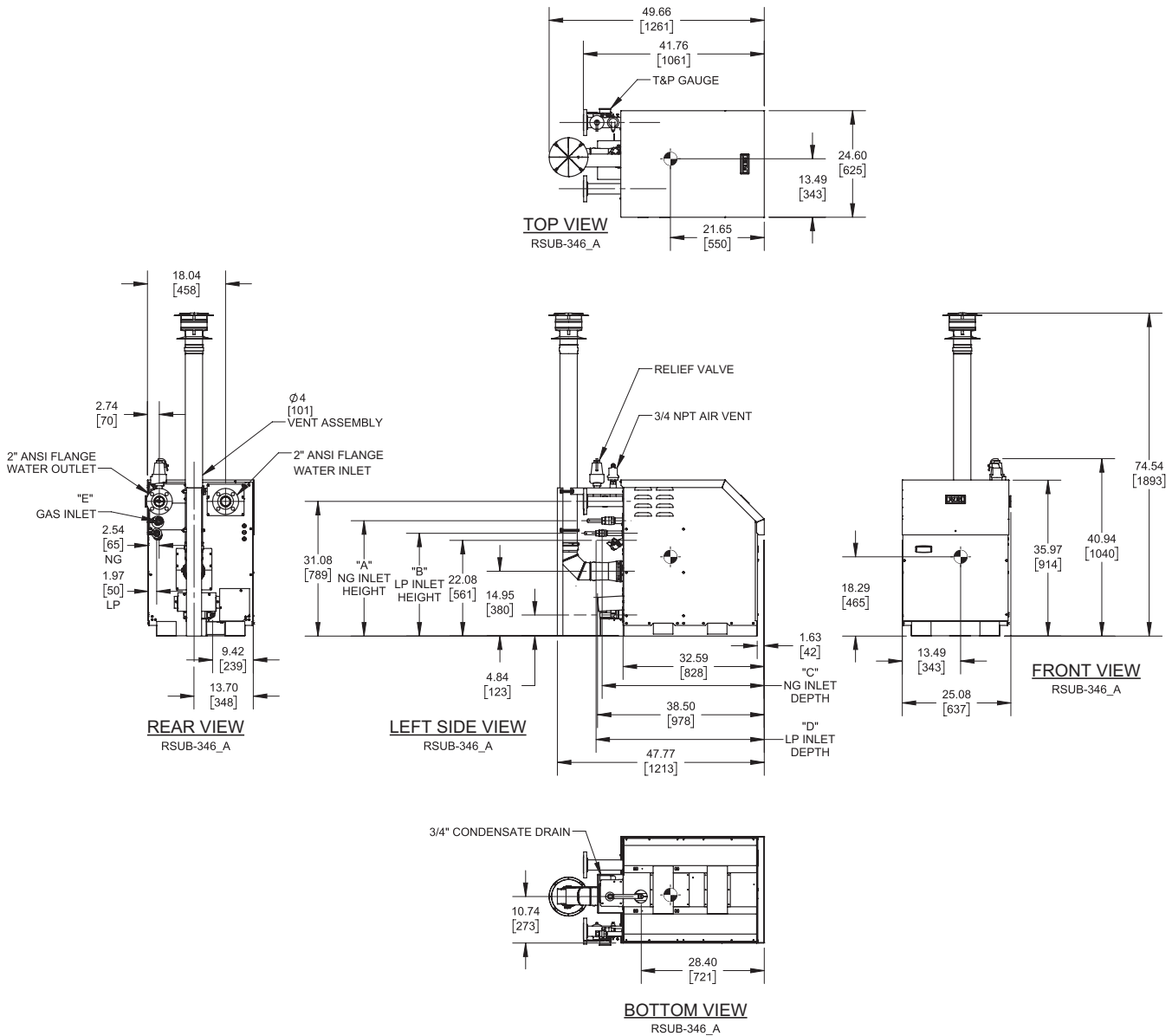
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## BOILER TRIM & CONTROLS

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<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
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<b>Htg Surface</b>		<b>Water Volume</b>	3.8 gal. / 14.38 Liters
<b>ASME Sect IV Water Side</b>	31.5 Sq. Ft. / 2.92 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			
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
33.8	2.1	8.4	25.2	22.5	1.4	3.8	11.4	16.9	1.1	2.2	6.6

Flow GPM (Boiler)		Temp. Rise (°F) (Boiler**)		Vent Length (Equiv. Ft.)		Air Inlet Length (Equiv. Ft.)	
Min	Max	Min	Max	Min	Max	Min	Max
16.9	33.8	20	40	Factory Supplied		0	

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## 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
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### 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
30.2	1.9	6.8	20.3	40.3	2.5	12.0	35.8

**REP FIRM** \_\_\_\_\_  
**SUBMITTED BY** \_\_\_\_\_  
**JOB NAME** \_\_\_\_\_  
**ARCHITECT** \_\_\_\_\_  
**ENGINEER** \_\_\_\_\_  
**CONTRACTOR** \_\_\_\_\_  
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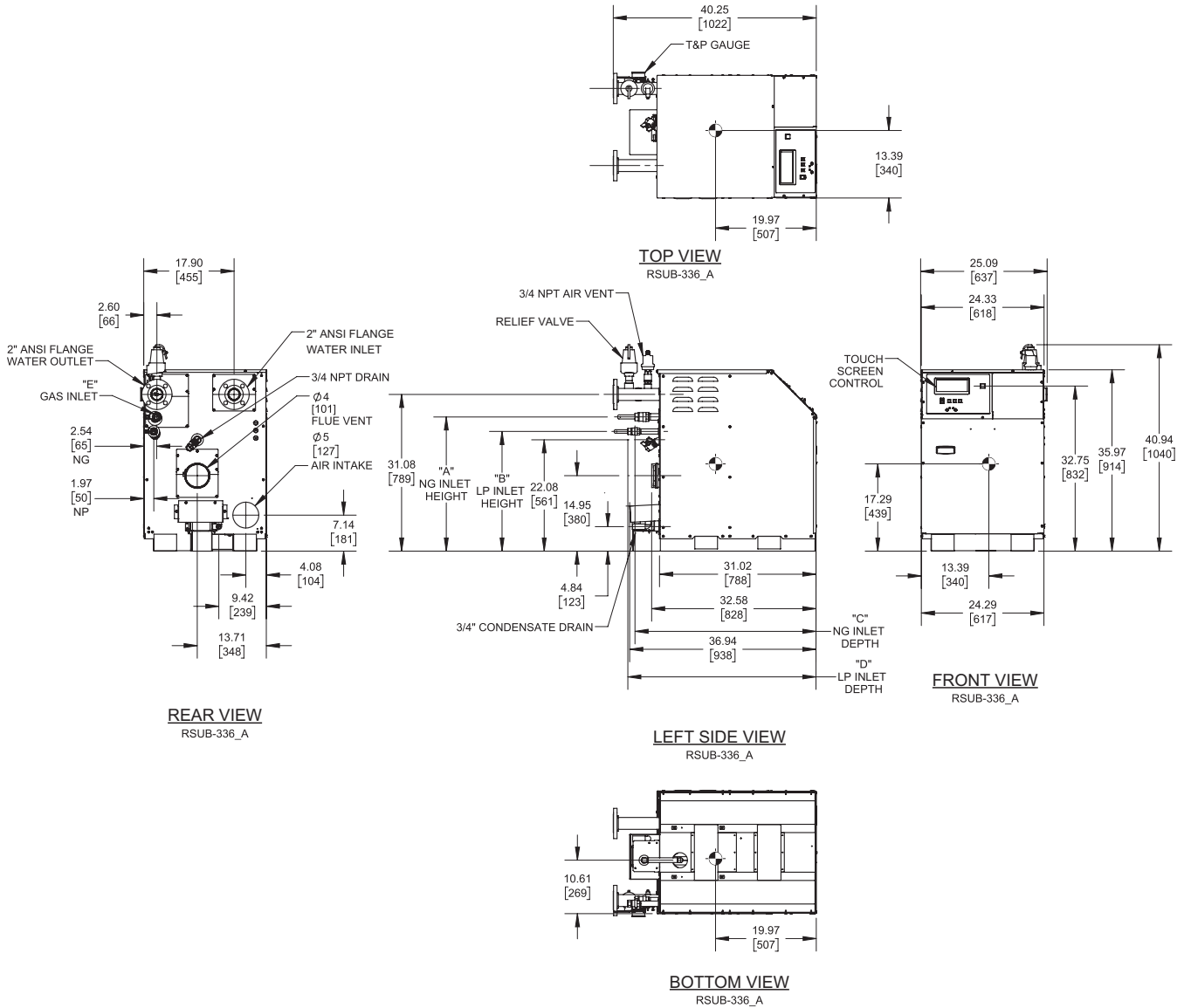
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## BOILER CERTIFIED RATINGS & CAPACITIES

<b>Fuel Type</b>	Natural/Propane Gas	<b>Boiler FLA</b>	12.0*
<b>Input BTU/hr.</b>	399,000 / 116.93 kW	<b>Boiler HP</b>	11.50
<b>Output BTU/hr.</b>	385,035 / 112.84 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>	418.20 lbs / 189.69 kg

## BOILER TRIM & CONTROLS

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<b>ASME Sect IV Water Side</b>	31.5 Sq. Ft. / 2.92 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			
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
38.5	2.4	10.9	32.7	25.7	1.6	4.9	14.7	19.3	1.2	2.8	8.4
Flow GPM (Boiler)		Temp. Rise (°F) (Boiler**)		Vent Length (Equiv. Ft.)		Air Inlet Length (Equiv. Ft.)					
Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
19.3	38.5	20	40	6	100	0	100				

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## 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
1174	4436	782	2957	587	2218	469	1774	391	1479	335	1267

### 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
30.7	1.9	7.0	20.9	41.0	2.6	12.4	37.0

REP FIRM \_\_\_\_\_  
SUBMITTED BY \_\_\_\_\_  
JOB NAME \_\_\_\_\_  
ARCHITECT \_\_\_\_\_  
ENGINEER \_\_\_\_\_  
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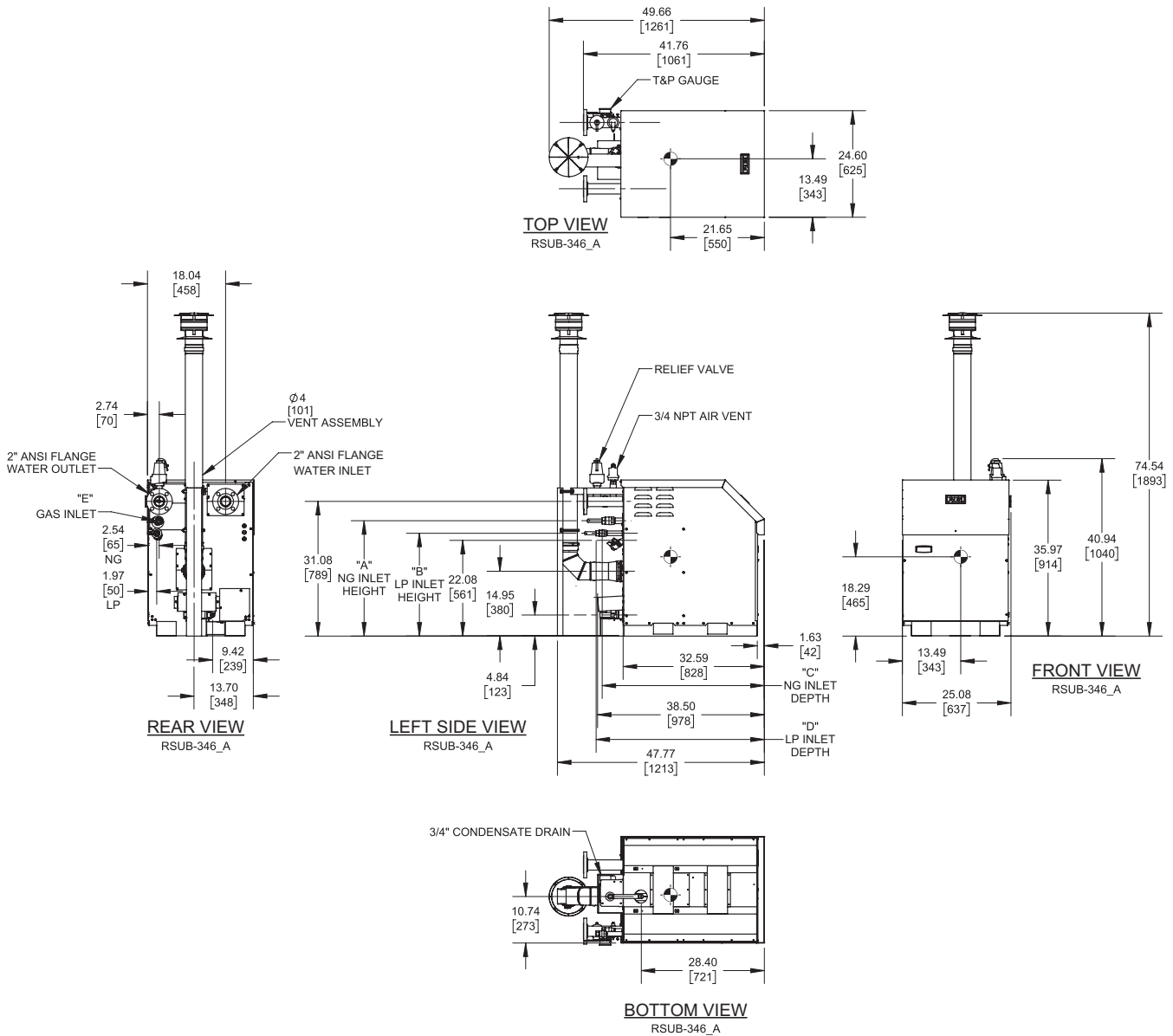
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## OUTDOOR UNIT



### 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.

GAS OPTION	"A"	"B"	"C"	"D"	"E"
NG	26.61 in / 675.89 mm	-	37.47 in / 951.74 mm	-	1 NPT
LP	-	27.72 in / 704.09 mm	-	38.84 in / 986.54 mm	3/4 NPT

## BOILER CERTIFIED RATINGS & CAPACITIES

<b>Fuel Type</b>	Natural/Propane Gas	<b>Boiler FLA</b>	12.0*
<b>Input BTU/hr.</b>	399,000 / 116.93 kW	<b>Boiler HP</b>	11.50
<b>Output BTU/hr.</b>	385,035 / 112.84 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>	443.69 lbs / 201.25 kg

## BOILER TRIM & CONTROLS

<b>Main Gas Valve</b>	Dungs MBC	<b>Air Switch</b>	Huba
<b>Firing Valve</b>	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>	Apollo	<b>Relief Valve (WB)</b>	3/4" x 3/4" 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>	34.8 Sq. Ft. / 3.23 Sq. M.	<b>Design Data</b>	Max. 160 psig & 210°F
<b>Htg Surface</b>		<b>Water Volume</b>	3.8 gal. / 14.38 Liters
<b>ASME Sect IV Water Side</b>	31.5 Sq. Ft. / 2.92 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			
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
38.5	2.4	10.9	32.7	25.7	1.6	4.9	14.7	19.3	1.2	2.8	8.4
Flow GPM (Boiler)		Temp. Rise (°F) (Boiler**)		Vent Length (Equiv. Ft.)		Air Inlet Length (Equiv. Ft.)					
Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
19.3	38.5	20	40	Factory Supplied				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
1174	4436	782	2957	587	2218	469	1774	391	1479	335	1267

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
30.7	1.9	7.0	20.9	41.0	2.6	12.4	37.0

<b>REP FIRM</b>	_____	<b>TORUS 400 DUAL FUEL</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 (833) 265-5371

# TORUS 500 DUAL FUEL

## Category II or Category IV Appliance

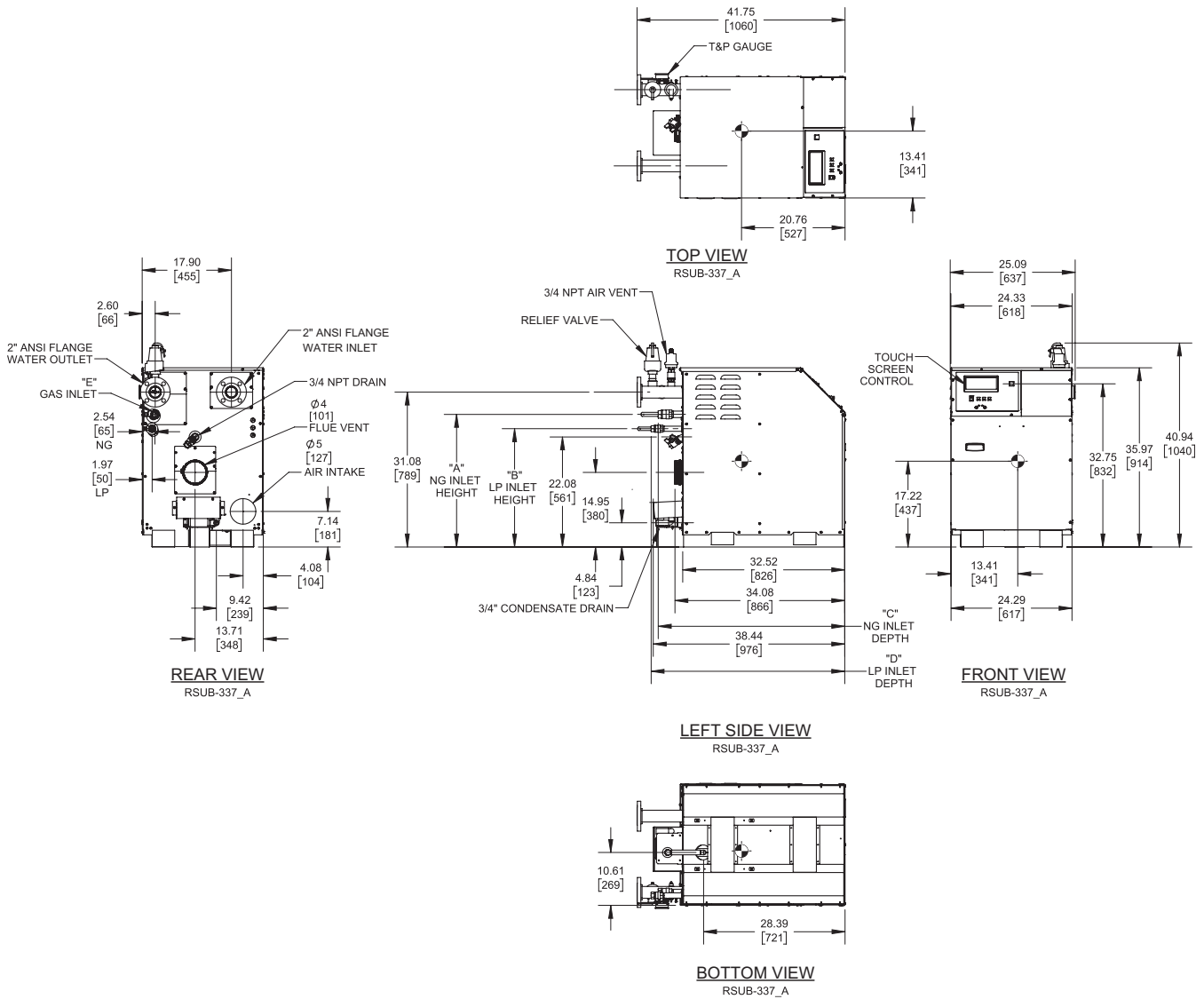
(see Installation and Operation Manual for venting information)

### CODE OPTIONS

CSD-1

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

## 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.

GAS OPTION	"A"	"B"	"C"	"D"	"E"
NG	27.17 in / 690.12 mm	-	37.43 in / 950.72 mm	-	1 NPT
LP	-	23.16 in / 588.26 mm	-	38.86 in / 987.04 mm	3/4 NPT

## BOILER CERTIFIED RATINGS & CAPACITIES

<b>Fuel Type</b>	Natural/Propane Gas	<b>Boiler FLA</b>	12.0*
<b>Input BTU/hr.</b>	500,000 / 146.54 kW	<b>Boiler HP</b>	14.40
<b>Output BTU/hr.</b>	482,000 / 141.26 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>	437.11 lbs / 198.27 kg

## BOILER TRIM & CONTROLS

<b>Main Gas Valve</b>	Dungs MBC	<b>Air Switch</b>	Huba
<b>Firing Valve</b>	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>	Apollo	<b>Relief Valve (WB)</b>	3/4" x 3/4" 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>	39.1 Sq. Ft. / 3.63 Sq. M.	<b>Design Data</b>	Max. 160 psig & 210°F
<b>Htg Surface</b>		<b>Water Volume</b>	4.2 gal. / 15.90 Liters
<b>ASME Sect IV Water Side</b>	35.44 Sq. Ft. / 3.29 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			
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
48.2	3.0	12.2	36.4	32.1	2.0	5.4	16.2	24.1	1.5	3.1	9.1
Flow GPM (Boiler)		Temp. Rise (°F) (Boiler**)		Vent Length (Equiv. Ft.)		Air Inlet Length (Equiv. Ft.)					
Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
24.1	48.2	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°C	120°F	67°C	140°F	78°C
1441	5445	960	3630	720	2723	576	2178	480	1815	412	1556

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
36.8	2.3	7.1	21.2	49.1	3.1	12.6	37.6

<b>REP FIRM</b>	_____	<b>TORUS 500 DUAL FUEL</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>RBI®</b> A Division of Mestek, Inc. Westfield, MA 01085 (833) 265-5371 <b>RELIABLE. BOLD. INNOVATIVE.</b>

# TORUS 500 DUAL FUEL

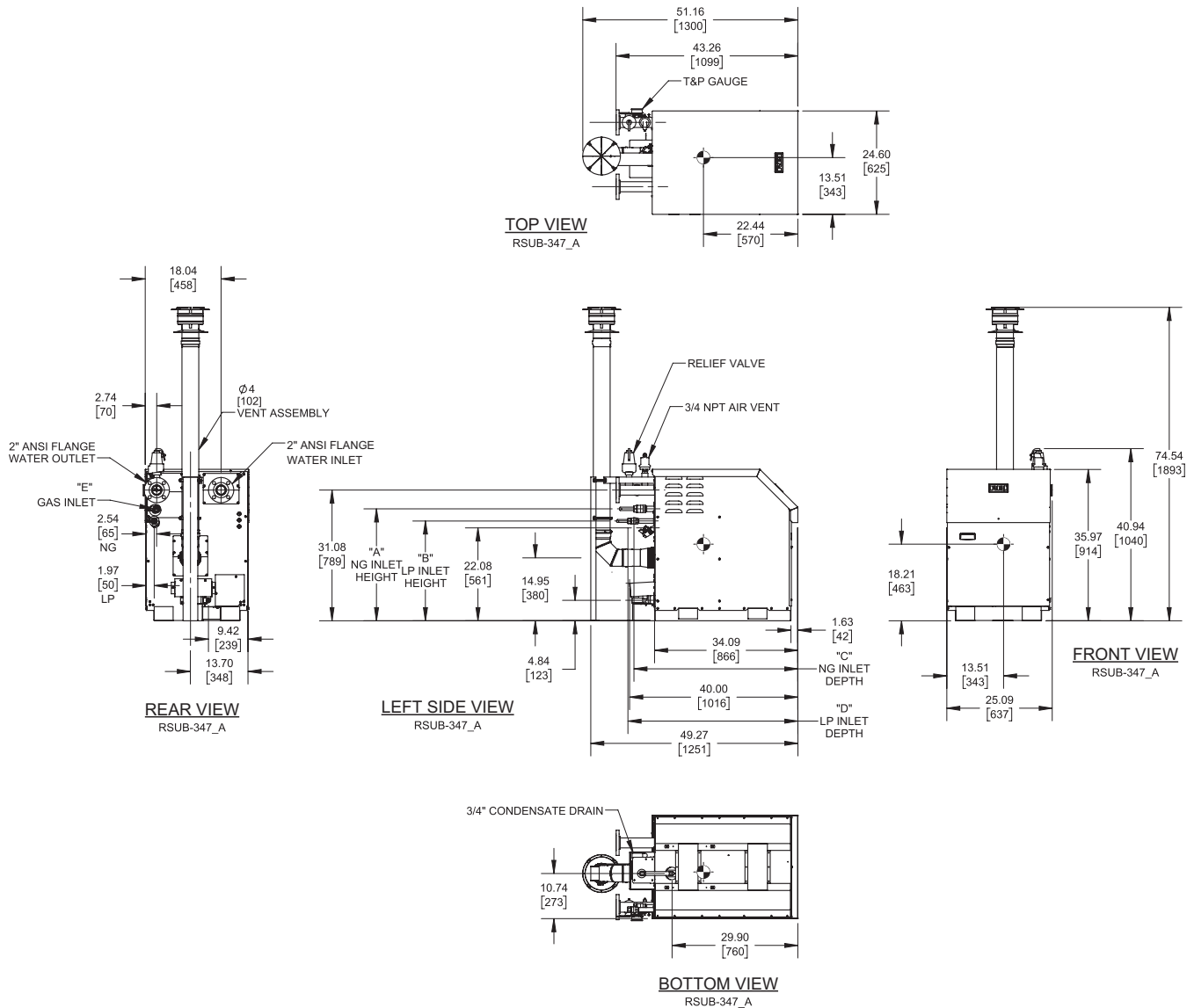
**Category II or Category IV Appliance**  
(see Installation and Operation Manual for venting information)

(see Installation and Operation Manual for venting information)

CODE OPTIONS	
<b>CSD-1</b>	FIRMWARE W/REMOTE TEST MANUAL RESET LWCO High and Low Gas Pressure Switches

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

## OUTDOOR UNIT



**Notes:**

- 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.

GAS OPTION	"A"	"B"	"C"	"D"	"E"
NG	27.17 in / 690.12 mm	-	39.00 in / 990.60 mm	-	1 NPT
LP	-	23.16 in / 588.26 mm	-	40.40 in / 1026.2 mm	3/4 NPT

## BOILER CERTIFIED RATINGS & CAPACITIES

<b>Fuel Type</b>	Natural/Propane Gas	<b>Boiler FLA</b>	12.0*
<b>Input BTU/hr.</b>	500,000 / 146.54 kW	<b>Boiler HP</b>	14.40
<b>Output BTU/hr.</b>	482,000 / 141.26 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>	463.23 lbs / 210.12 kg

## BOILER TRIM & CONTROLS

<b>Main Gas Valve</b>	Dungs MBC	<b>Air Switch</b>	Huba
<b>Firing Valve</b>	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>	Apollo	<b>Relief Valve (WB)</b>	3/4" x 3/4" set @ 50 psi
		<b>Relief Valve (WW)</b>	1" x 1" set @ 125 psi

Pump contactor strongly recommended for water heater applications.

## A.S.M.E.

<b>ASME Sect IV Fire Side</b>	39.1 Sq. Ft. / 3.63 Sq. M.	<b>Design Data</b>	Max. 160 psig & 210°F
<b>Htg Surface</b>		<b>Water Volume</b>	4.2 gal. / 15.90 Liters
<b>ASME Sect IV Water Side</b>	35.44 Sq. Ft. / 3.29 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			
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
48.2	3.0	12.2	36.4	32.1	2.0	5.4	16.2	24.1	1.5	3.1	9.1
Flow GPM (Boiler)		Temp. Rise (°F) (Boiler**)		Vent Length (Equiv. Ft.)		Air Inlet Length (Equiv. Ft.)					
Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
24.1	48.2	20	40	Factory Supplied				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
1441	5445	960	3630	720	2723	576	2178	480	1815	412	1556

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
36.8	2.3	7.1	21.2	49.1	3.1	12.6	37.6

<b>REP FIRM</b>	_____	<b>TORUS 500 DUAL FUEL</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 (833) 265-5371



# TORUS 650 DUAL FUEL

## Category II or Category IV Appliance

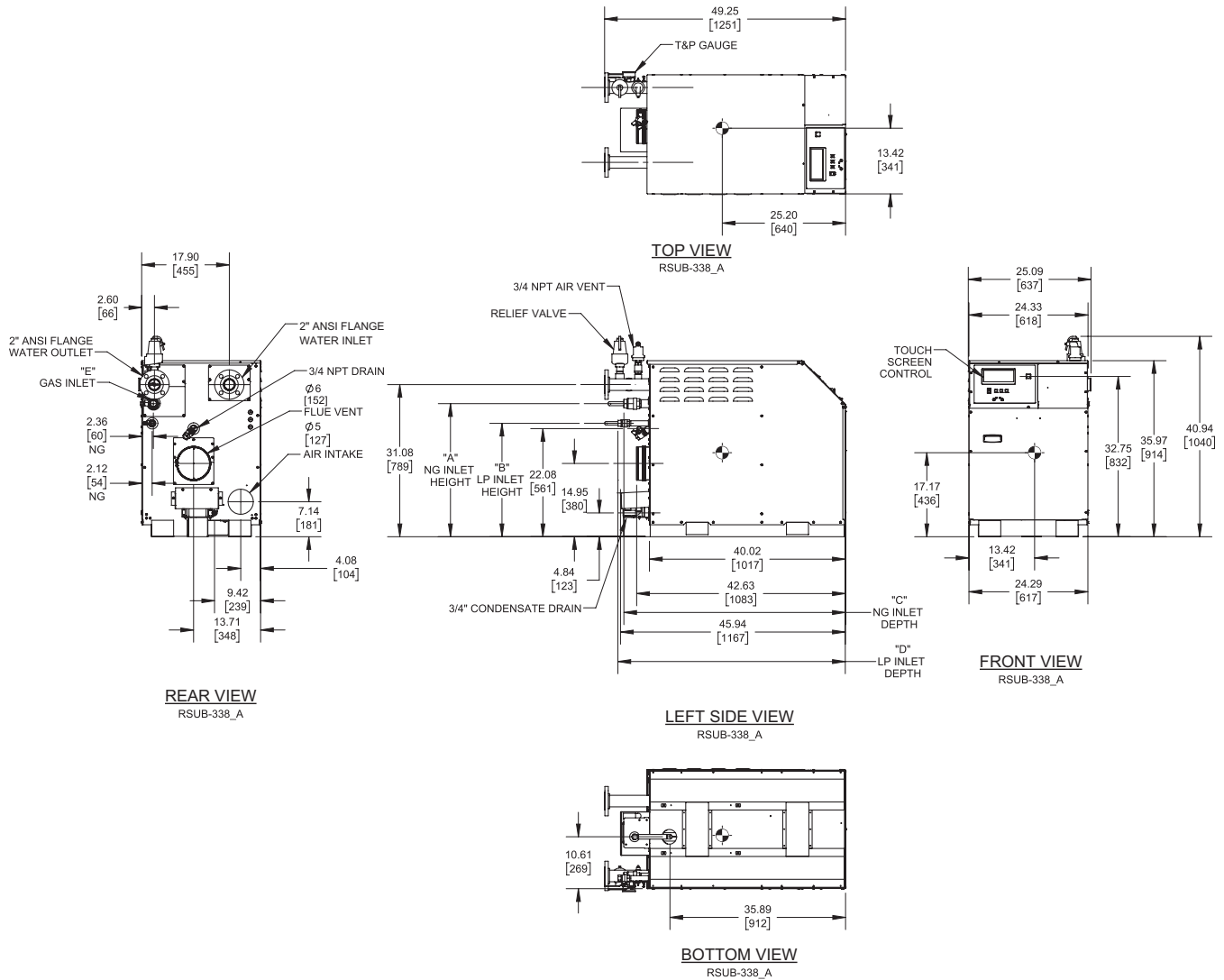
(see Installation and Operation Manual for venting information)

### CODE OPTIONS


CSD-1

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

## 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.

GAS OPTION	"A"	"B"	"C"	"D"	"E"
NG	27.17 in / 690.12 mm	-	45.25 in / 1149.3 mm	-	1 1/4 NPT
LP	-	23.16 in / 588.26 mm	-	46.46 in / 1180.1 mm	3/4 NPT

## BOILER CERTIFIED RATINGS & CAPACITIES

<b>Fuel Type</b>	Natural/Propane Gas	<b>Boiler FLA</b>	12.0*
<b>Input BTU/hr.</b>	650,000 / 190.49 kW	<b>Boiler HP</b>	18.70
<b>Output BTU/hr.</b>	625,950 / 183.45 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>	499.54 lbs / 226.59 kg

## BOILER TRIM & CONTROLS

<b>Main Gas Valve</b>	Dungs MBC	<b>Air Switch</b>	Huba
<b>Firing Valve</b>	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>	Apollo	<b>Relief Valve (WB)</b>	3/4" x 3/4" 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>	52.2 Sq. Ft. / 4.85 Sq. M.	<b>Design Data</b>	Max. 160 psig & 210°F
<b>Htg Surface</b>		<b>Water Volume</b>	5.6 gal. / 21.19 Liters
<b>ASME Sect IV Water Side</b>	47.25 Sq. Ft. / 4.39 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			
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
62.6	4.0	12.2	36.3	41.7	2.6	5.4	16.2	31.3	2.0	3.1	9.2

Flow GPM (Boiler)		Temp. Rise (°F) (Boiler**)		Vent Length (Equiv. Ft.)		Air Inlet Length (Equiv. Ft.)	
Min	Max	Min	Max	Min	Max	Min	Max
31.3	62.6	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°C	120°F	67°C	140°F	78°C
1892	7153	1262	4768	946	3576	757	2861	631	2384	541	2044

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
48.7	3.1	7.4	22.0	65.0	4.1	13.1	39.2

<b>REP FIRM</b>	_____	<div><b>TORUS 650 DUAL FUEL</b></div> <div><b>Category II or Category IV Appliance</b> (see Installation and Operation Manual for venting information)</div> <div>  <b>A Division of Mestek, Inc.</b>  Westfield, MA 01085  (833) 265-5371 </div>
<b>SUBMITTED BY</b>	_____	
<b>JOB NAME</b>	_____	
<b>ARCHITECT</b>	_____	
<b>ENGINEER</b>	_____	
<b>CONTRACTOR</b>	_____	
<b>DATE</b>	_____	

# TORUS 650 DUAL FUEL

## Category II or Category IV Appliance

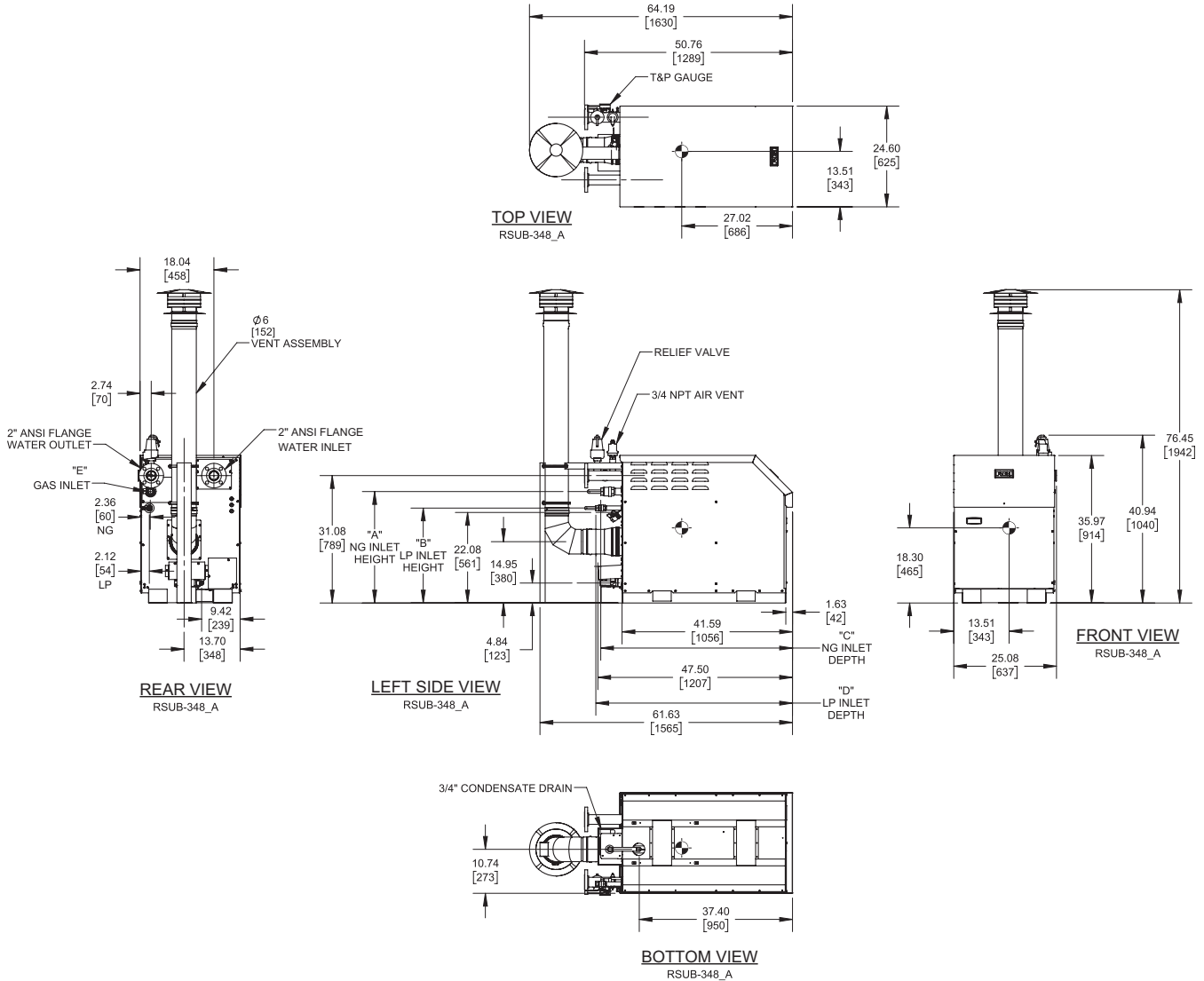
(see Installation and Operation Manual for venting information)

## CODE OPTIONS

CSD-1

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

## OUTDOOR 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.

GAS OPTION	"A"	"B"	"C"	"D"	"E"
NG	27.17 in / 690.12 mm	-	46.81 in / 1189.0 mm	-	1 1/4 NPT
LP	-	23.16 in / 588.26 mm	-	50.00 in / 1270.0 mm	3/4 NPT

## BOILER CERTIFIED RATINGS & CAPACITIES

<b>Fuel Type</b>	Natural/Propane Gas	<b>Boiler FLA</b>	12.0*
<b>Input BTU/hr.</b>	650,000 / 190.49 kW	<b>Boiler HP</b>	18.70
<b>Output BTU/hr.</b>	625,950 / 183.45 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>	530.99 lbs / 240.85 kg

## BOILER TRIM & CONTROLS

<b>Main Gas Valve</b>	Dungs MBC	<b>Air Switch</b>	Huba
<b>Firing Valve</b>	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>	Apollo	<b>Relief Valve (WB)</b>	3/4" x 3/4" 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>	52.2 Sq. Ft. / 4.85 Sq. M.	<b>Design Data</b>	Max. 160 psig & 210°F
<b>Htg Surface</b>		<b>Water Volume</b>	5.6 gal. / 21.19 Liters
<b>ASME Sect IV Water Side</b>	47.25 Sq. Ft. / 4.39 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			
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
62.6	4.0	12.2	36.3	41.7	2.6	5.4	16.2	31.3	2.0	3.1	9.2

Flow GPM (Boiler)		Temp. Rise (°F) (Boiler**)		Vent Length (Equiv. Ft.)		Air Inlet Length (Equiv. Ft.)	
Min	Max	Min	Max	Min	Max	Min	Max
31.3	62.6	20	40	Factory Supplied		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
1892	7153	1262	4768	946	3576	757	2861	631	2384	541	2044

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
48.7	3.1	7.4	22.0	65.0	4.1	13.1	39.2

<b>REP FIRM</b>	_____	<b>TORUS 650 DUAL FUEL</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>RBI®</b> A Division of Mestek, Inc. Westfield, MA 01085 (833) 265-5371 <b>RELIABLE. BOLD. INNOVATIVE.</b>

# TORUS 800 DUAL FUEL

## Category II or Category IV Appliance

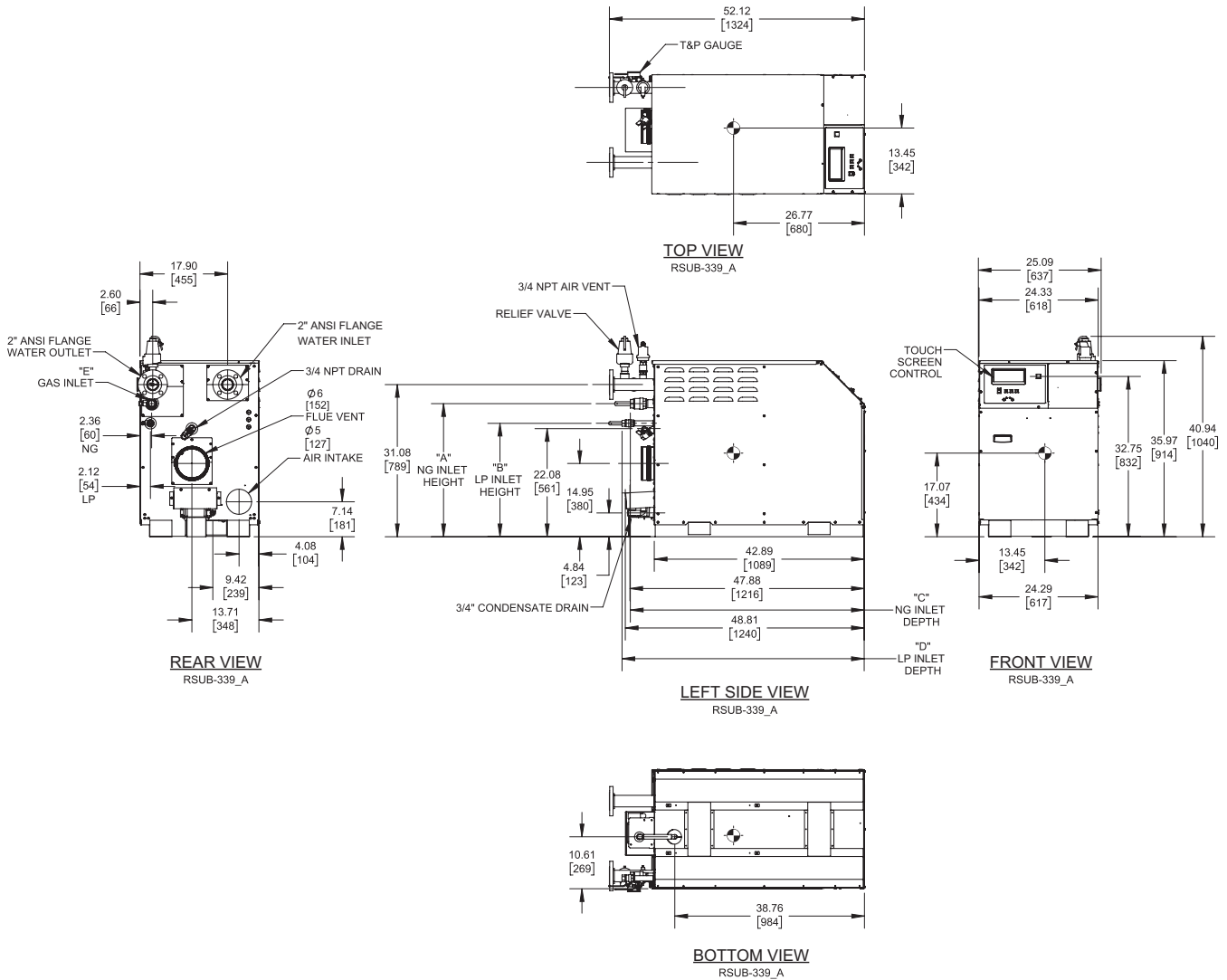
(see Installation and Operation Manual for venting information)

## CODE OPTIONS


CSD-1

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

## 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.

GAS OPTION	"A"	"B"	"C"	"D"	"E"
NG	27.17 in / 690.12 mm	-	47.78 in / 1213.6 mm	-	1 1/4 NPT
LP	-	23.16 in / 588.26 mm	-	49.49 in / 1257.0 mm	3/4 NPT

## BOILER CERTIFIED RATINGS & CAPACITIES

<b>Fuel Type</b>	Natural/Propane Gas	<b>Boiler FLA</b>	12.0*
<b>Input BTU/hr.</b>	800,000 / 234.45 kW	<b>Boiler HP</b>	22.97
<b>Output BTU/hr.</b>	768,800 / 225.31 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>	536.44 lbs / 243.32 kg

## BOILER TRIM & CONTROLS

<b>Main Gas Valve</b>	Dungs MBC	<b>Air Switch</b>	Huba
<b>Firing Valve</b>	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>	Apollo	<b>Relief Valve (WB)</b>	3/4" x 3/4" 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>	60.90 Sq. Ft. / 5.65 Sq. M.	<b>Design Data</b>	Max. 160 psig & 210°F
<b>Htg Surface</b>		<b>Water Volume</b>	6.6 gal. / 24.98 Liters
<b>ASME Sect IV Water Side</b>	55.12 Sq. Ft. / 5.12 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			
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
76.9	4.9	13.4	39.9	51.3	3.2	5.9	17.8	38.5	2.4	3.4	10.1


Flow GPM (Boiler)		Temp. Rise (°F) (Boiler**)		Vent Length (Equiv. Ft.)		Air Inlet Length (Equiv. Ft.)	
Min	Max	Min	Max	Min	Max	Min	Max
38.5	76.9	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°C	120°F	67°C	140°F	78°C
2329	8803	1553	5869	1164	4402	932	3521	776	2934	665	2515

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
61.1	3.9	8.4	25.2	81.3	5.1	14.9	44.6

<b>REP FIRM</b>	_____	<div><b>TORUS 800 DUAL FUEL</b></div> <div><b>Category II or Category IV Appliance</b> (see Installation and Operation Manual for venting information)</div> <div>  <b>RELIABLE. BOLD. INNOVATIVE.</b> </div> <div>A Division of Mestek, Inc. Westfield, MA 01085 (833) 265-5371</div>
<b>SUBMITTED BY</b>	_____	
<b>JOB NAME</b>	_____	
<b>ARCHITECT</b>	_____	
<b>ENGINEER</b>	_____	
<b>CONTRACTOR</b>	_____	
<b>DATE</b>	_____	

# TORUS 800 DUAL FUEL

## Category II or Category IV Appliance

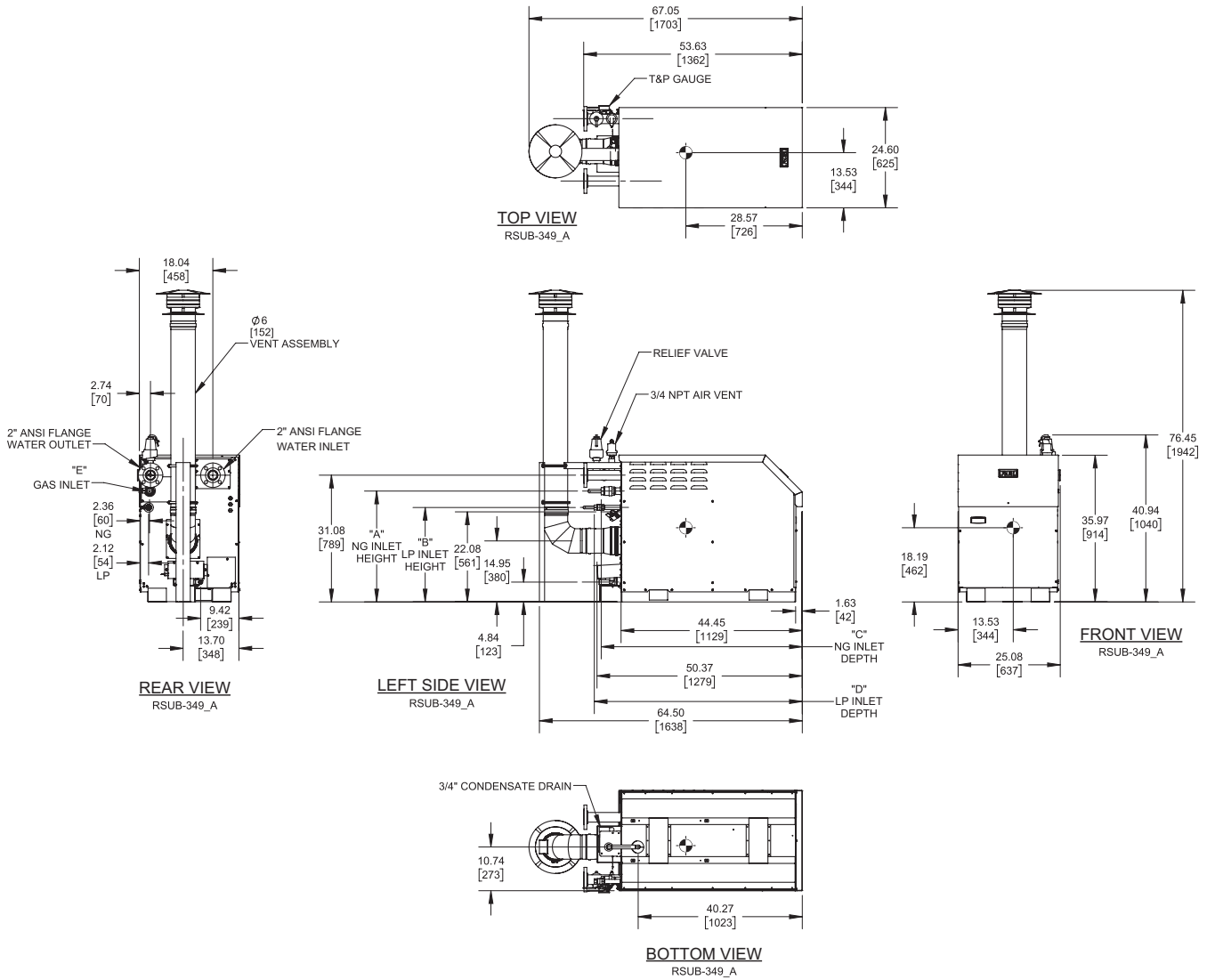
(see Installation and Operation Manual for venting information)

## CODE OPTIONS

CSD-1

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

## OUTDOOR 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.

GAS OPTION	"A"	"B"	"C"	"D"	"E"
NG	27.17 in / 690.12 mm	-	49.35 in / 1253.5 mm	-	1 1/4 NPT
LP	-	23.16 in / 588.26 mm	-	51.03 in / 1296.2 mm	3/4 NPT

## BOILER CERTIFIED RATINGS & CAPACITIES

<b>Fuel Type</b>	Natural/Propane Gas	<b>Boiler FLA</b>	12.0*
<b>Input BTU/hr.</b>	800,000 / 234.45 kW	<b>Boiler HP</b>	22.97
<b>Output BTU/hr.</b>	768,800 / 225.31 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>	569.07 lbs / 258.12 kg

## BOILER TRIM & CONTROLS

<b>Main Gas Valve</b>	Dungs MBC	<b>Air Switch</b>	Huba
<b>Firing Valve</b>	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>	Apollo	<b>Relief Valve (WB)</b>	3/4" x 3/4" 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>	60.90 Sq. Ft. / 5.65 Sq. M.	<b>Design Data</b>	Max. 160 psig & 210°F
<b>Htg Surface</b>		<b>Water Volume</b>	6.6 gal. / 24.98 Liters
<b>ASME Sect IV Water Side</b>	55.12 Sq. Ft. / 5.12 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			
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
76.9	4.9	13.4	39.9	51.3	3.2	5.9	17.8	38.5	2.4	3.4	10.1
Flow GPM (Boiler)		Temp. Rise (°F) (Boiler**)		Vent Length (Equiv. Ft.)		Air Inlet Length (Equiv. Ft.)					
Min	Max	Min	Max	Min	Max	Min	Max	Min	Max		
38.5	76.9	20	40	Factory Supplied				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
2329	8803	1553	5869	1164	4402	932	3521	776	2934	665	2515

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
61.1	3.9	8.4	25.2	81.3	5.1	14.9	44.6

**REP FIRM** \_\_\_\_\_  
**SUBMITTED BY** \_\_\_\_\_  
**JOB NAME** \_\_\_\_\_  
**ARCHITECT** \_\_\_\_\_  
**ENGINEER** \_\_\_\_\_  
**CONTRACTOR** \_\_\_\_\_  
**DATE** \_\_\_\_\_

## TORUS 800 DUAL FUEL

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



A Division of Mestek, Inc.  
Westfield, MA 01085  
(833) 265-5371



# TORUS 1000 DUAL FUEL

## Category II or Category IV Appliance

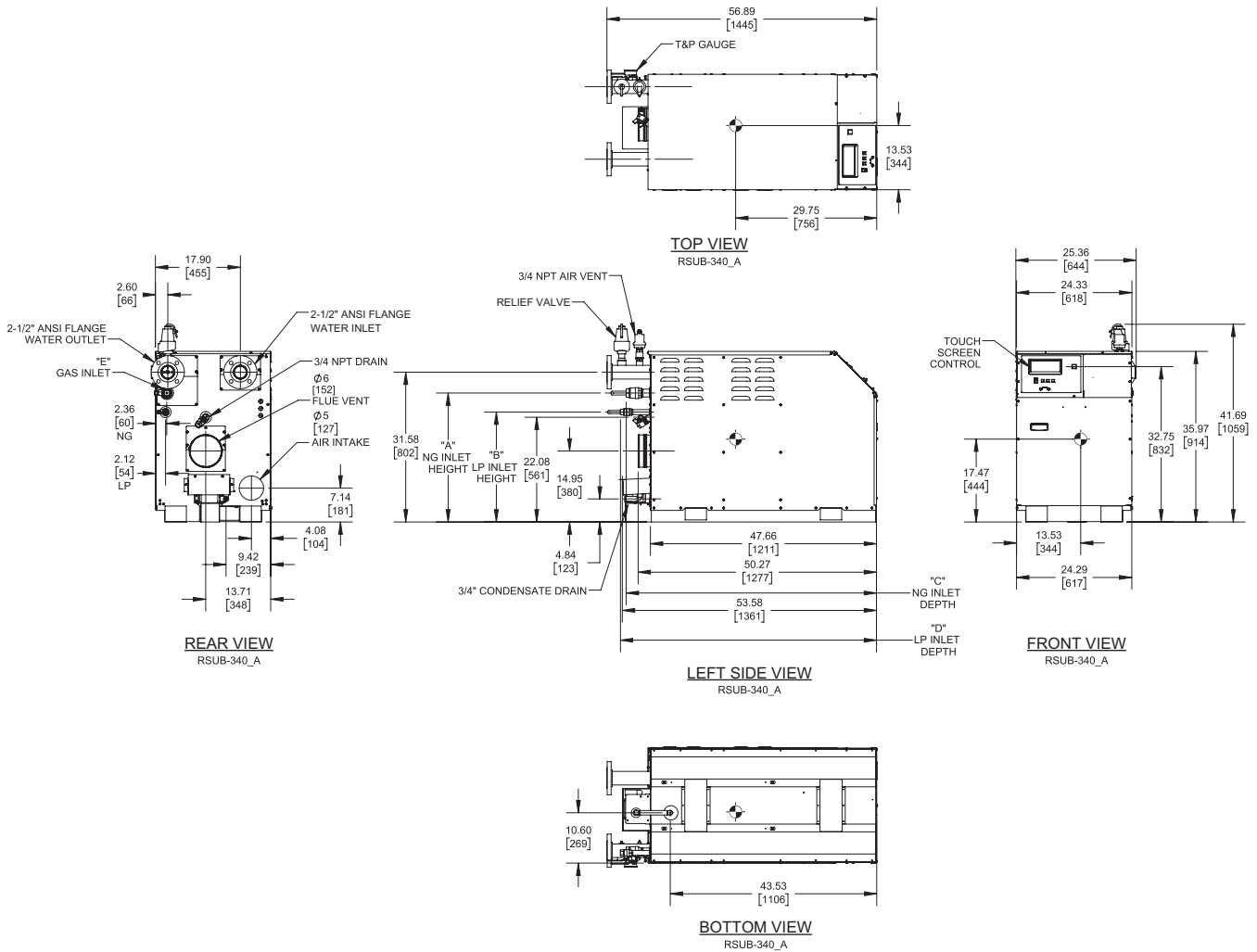
(see Installation and Operation Manual for venting information)

## CODE OPTIONS


CSD-1

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

## 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.

GAS OPTION	"A"	"B"	"C"	"D"	"E"
NG	27.17 in / 690.12 mm	-	52.79 in / 1340.9 mm	-	1 1/4 NPT
LP	-	23.16 in / 588.26 mm	-	53.99 in / 1371.3 mm	3/4 NPT

## BOILER CERTIFIED RATINGS & CAPACITIES

<b>Fuel Type</b>	Natural/Propane Gas	<b>Boiler FLA</b>	12.0*
<b>Input BTU/hr.</b>	999,000 / 292.77 kW	<b>Boiler HP</b>	28.65
<b>Output BTU/hr.</b>	959,040 / 281.067 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>	620.25 lbs / 281.34 kg

## BOILER TRIM & CONTROLS

<b>Main Gas Valve</b>	Dungs MBC	<b>Air Switch</b>	Huba
<b>Firing Valve</b>	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>	Apollo	<b>Relief Valve (WB)</b>	3/4" x 1" 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>	75.4 Sq. Ft. / 7.00 Sq. M.	<b>Design Data</b>	Max. 160 psig & 210°F
<b>Htg Surface</b>		<b>Water Volume</b>	8.1 gal. / 30.66 Liters
<b>ASME Sect IV Water Side</b>	68.24 Sq. Ft. / 6.34 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			
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
95.9	6.1	16.2	48.3	64.0	4.0	7.2	21.5	48.0	3.0	4.1	12.2


Flow GPM (Boiler)		Temp. Rise (°F) (Boiler**)		Vent Length (Equiv. Ft.)		Air Inlet Length (Equiv. Ft.)	
Min	Max	Min	Max	Min	Max	Min	Max
48.0	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°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 Rate		Pressure Drop		Flow Rate		Pressure Drop	
gpm	L/s	Ft	kPa	gpm	L/s	Ft	kPa
73.4	4.6	9.5	28.3	97.9	6.2	16.8	50.3

<b>REP FIRM</b>	_____	<div><b>TORUS 1000 DUAL FUEL</b></div> <div><b>Category II or Category IV Appliance</b> (see Installation and Operation Manual for venting information)</div> <div>  <b>RELIABLE. BOLD. INNOVATIVE.</b> </div> <div>A Division of Mestek, Inc. Westfield, MA 01085 (833) 265-5371</div>
<b>SUBMITTED BY</b>	_____	
<b>JOB NAME</b>	_____	
<b>ARCHITECT</b>	_____	
<b>ENGINEER</b>	_____	
<b>CONTRACTOR</b>	_____	
<b>DATE</b>	_____	

# TORUS 1000 DUAL FUEL

## Category II or Category IV Appliance

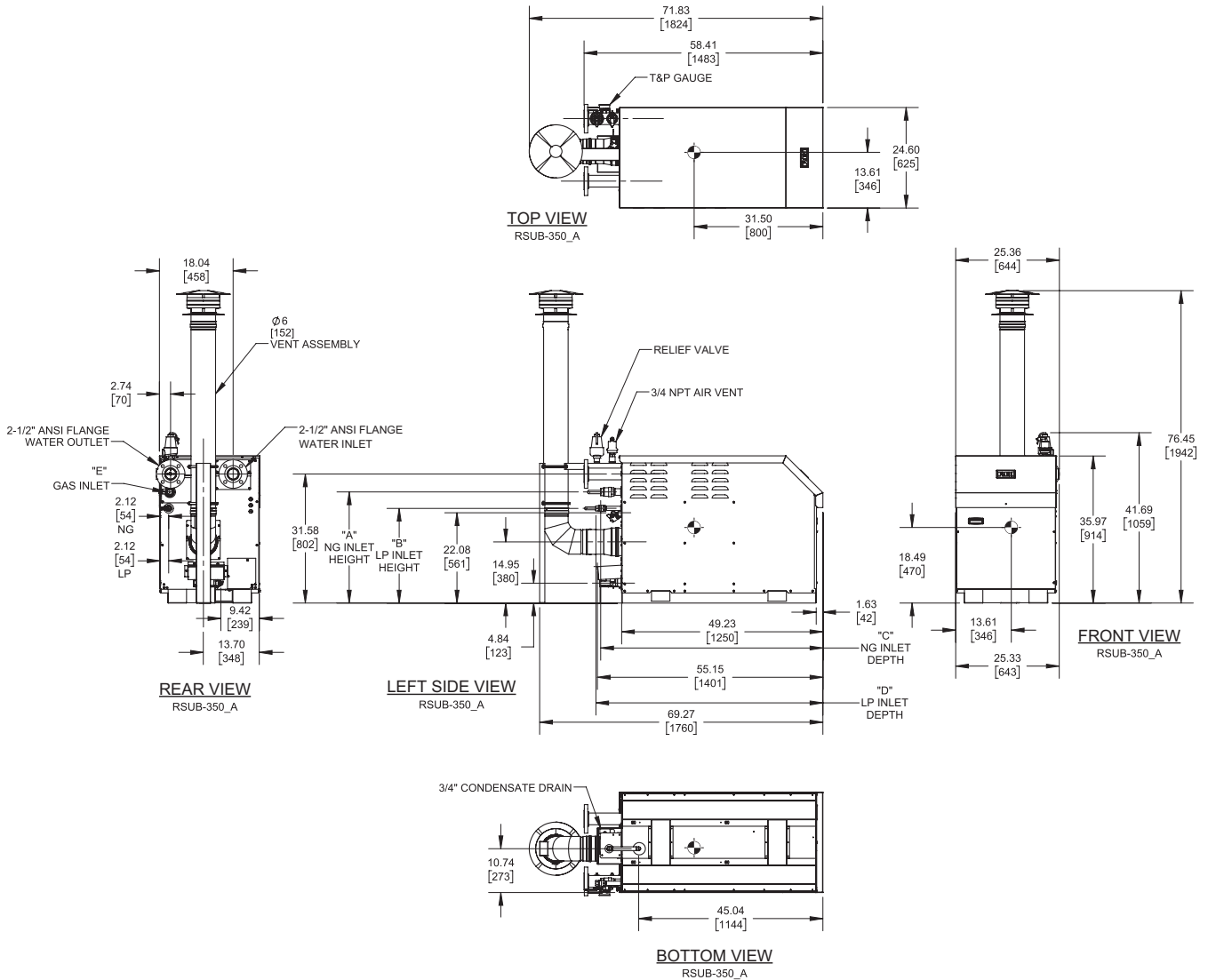
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CSD-1

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

## OUTDOOR UNIT



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NG	27.17 in / 690.12 mm	-	54.35 in / 1380.5 mm	-	1 1/4 NPT
LP	-	23.16 in / 588.26 mm	-	55.53 in / 1410.5 mm	3/4 NPT

## BOILER CERTIFIED RATINGS & CAPACITIES

<b>Fuel Type</b>	Natural/Propane Gas	<b>Boiler FLA</b>	12.0*
<b>Input BTU/hr.</b>	999,000 / 292.77 kW	<b>Boiler HP</b>	28.65
<b>Output BTU/hr.</b>	959,040 / 281.067 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>	654.85 lbs / 297.03 kg

## BOILER TRIM & CONTROLS

<b>Main Gas Valve</b>	Dungs MBC	<b>Air Switch</b>	Huba
<b>Firing Valve</b>	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>	Apollo	<b>Relief Valve (WB)</b>	3/4" x 1" 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>	75.4 Sq. Ft. / 7.00 Sq. M.	<b>Design Data</b>	Max. 160 psig & 210°F
<b>Htg Surface</b>		<b>Water Volume</b>	8.1 gal. / 30.66 Liters
<b>ASME Sect IV Water Side</b>	68.24 Sq. Ft. / 6.34 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			
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
95.9	6.1	16.2	48.3	64.0	4.0	7.2	21.5	48.0	3.0	4.1	12.2
Flow GPM (Boiler)		Temp. Rise (°F) (Boiler**)		Vent Length (Equiv. Ft.)		Air Inlet Length (Equiv. Ft.)					
Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
48.0	95.9	20	40	Factory Supplied				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 Rate		Pressure Drop		Flow Rate		Pressure Drop	
gpm	L/s	Ft	kPa	gpm	L/s	Ft	kPa
73.4	4.6	9.5	28.3	97.9	6.2	16.8	50.3

<b>REP FIRM</b>	_____	<b>TORUS 1000 DUAL FUEL</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>RBI®</b> A Division of Mestek, Inc. Westfield, MA 01085 (833) 265-5371 <b>RELIABLE. BOLD. INNOVATIVE.</b>