

# TORUS 1250 VERTICAL

## Category II or Category IV Appliance

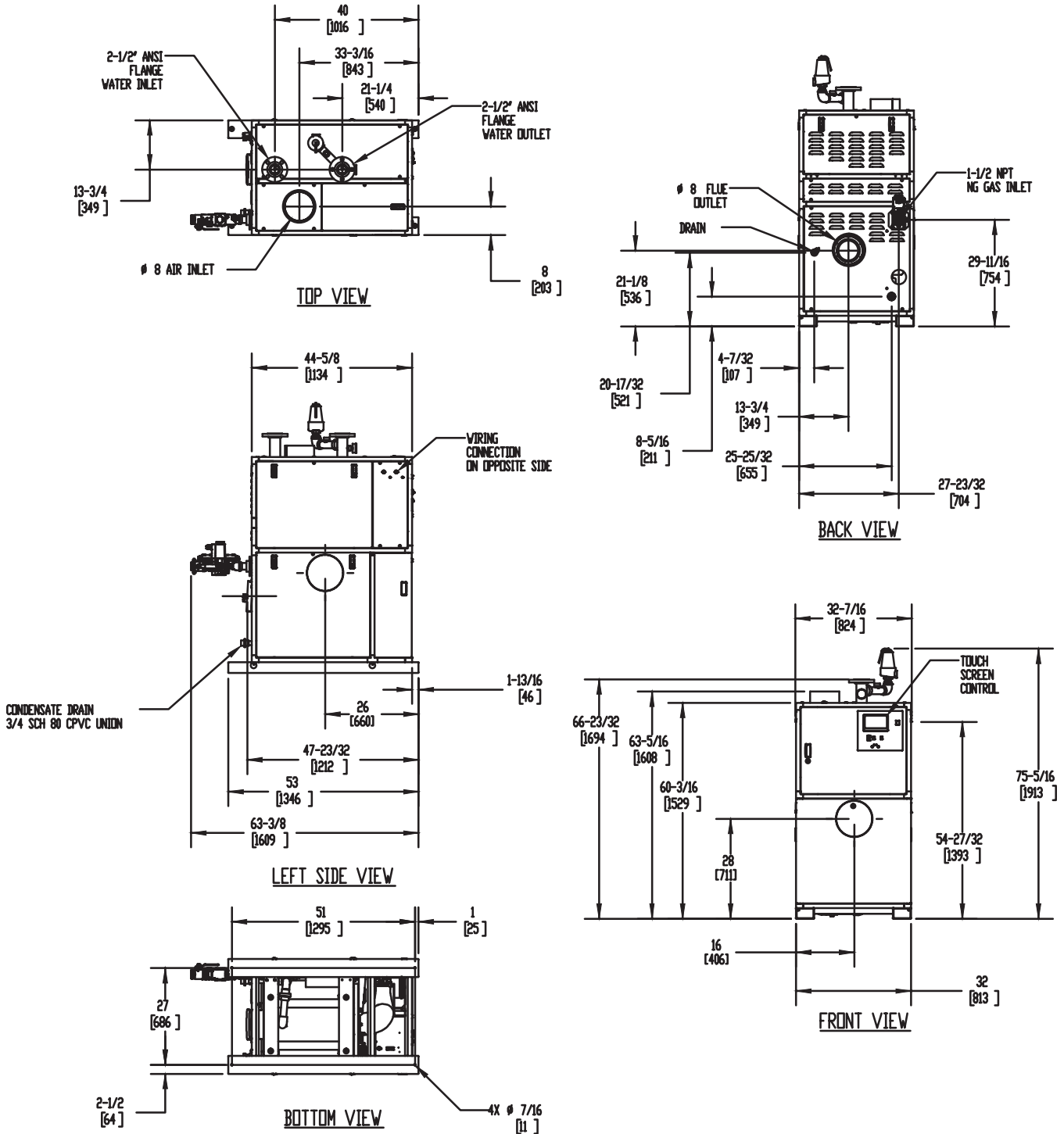
(see Installation and Operation Manual for venting information)

## 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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## Category II or Category IV Appliance

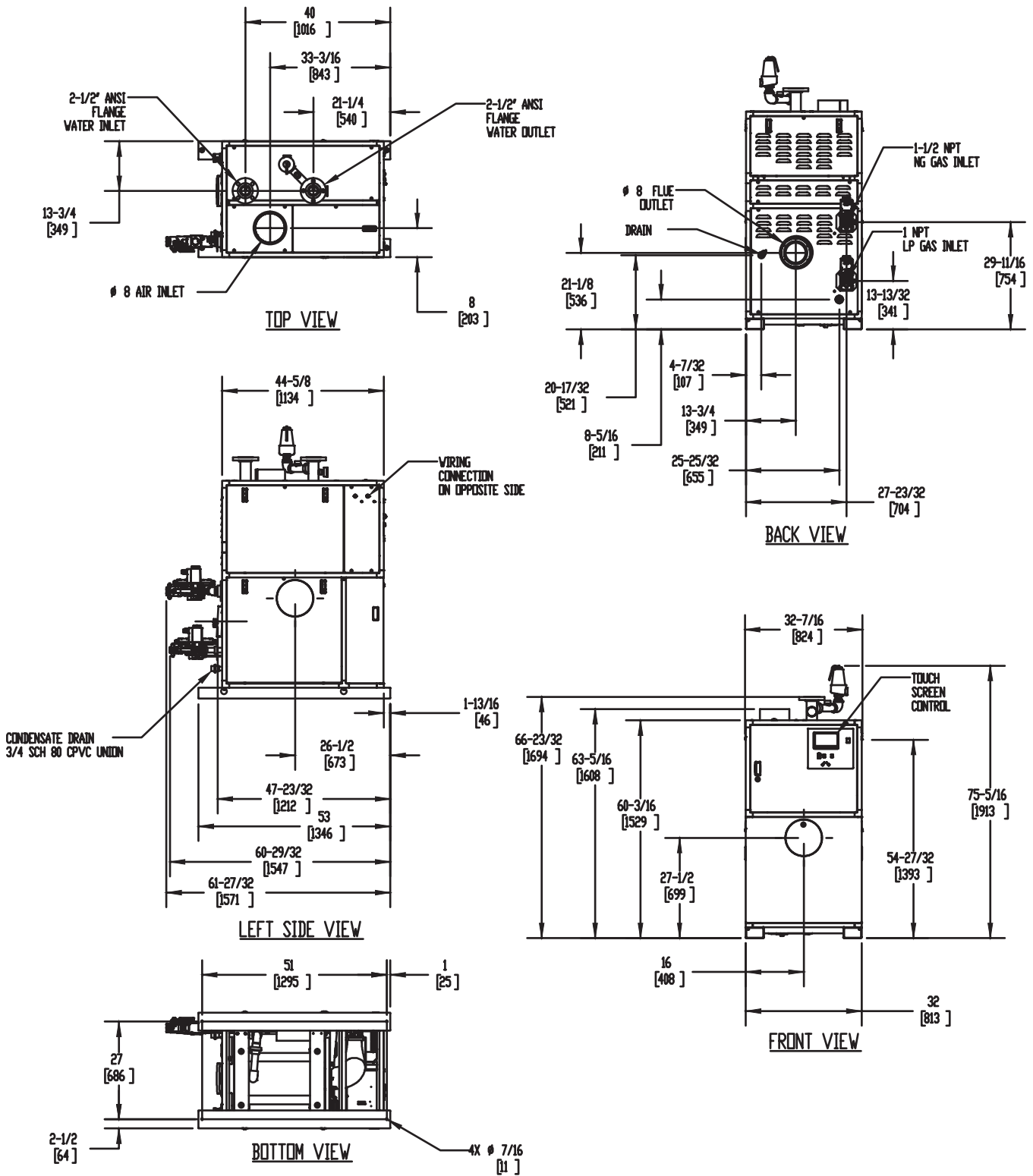
(see Installation and Operation Manual for venting information)

## CODE OPTIONS

CSD-1

FIRMWARE W/REMOTE TEST  
MANUAL RESET LWCO

## 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>	17.14*
<b>Input BTU/hr.</b>	1,250,000 / 366 kW	<b>Boiler HP</b>	36.04
<b>Output BTU/hr.</b>	1,206,250 / 353 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>	1084 lbs / 492 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>	100.17 Sq. Ft. / 9.31 Sq. M.	<b>Design Data</b>	Max. 160 psig & 210°F
<b>Htg Surface</b>		<b>Water Volume</b>	11 gal. / 41.6 Liters
<b>ASME Sect IV Water Side</b>	92.93 Sq. Ft. / 8.63 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
120.7	7.6	17.2	45.9	80.4	5.1	7.7	21.7	60.3	3.8	4.7	13.9	48.3	3.0	3.6	10.7	40.2	2.5	3.0	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					
40.2		120.7		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
3639	13755	2426	9170	1819	6878	1456	5502	1213	4585	1040	3930

### 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
110.5	7.0	14.4	43.1	147.3	9.3	25.5	76.2

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

## TORUS 1250 VERTICAL

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



A Division of Mestek, Inc.  
Westfield, MA 01085  
(413) 564-5515

# TORUS 1500 VERTICAL

## Category II or Category IV Appliance

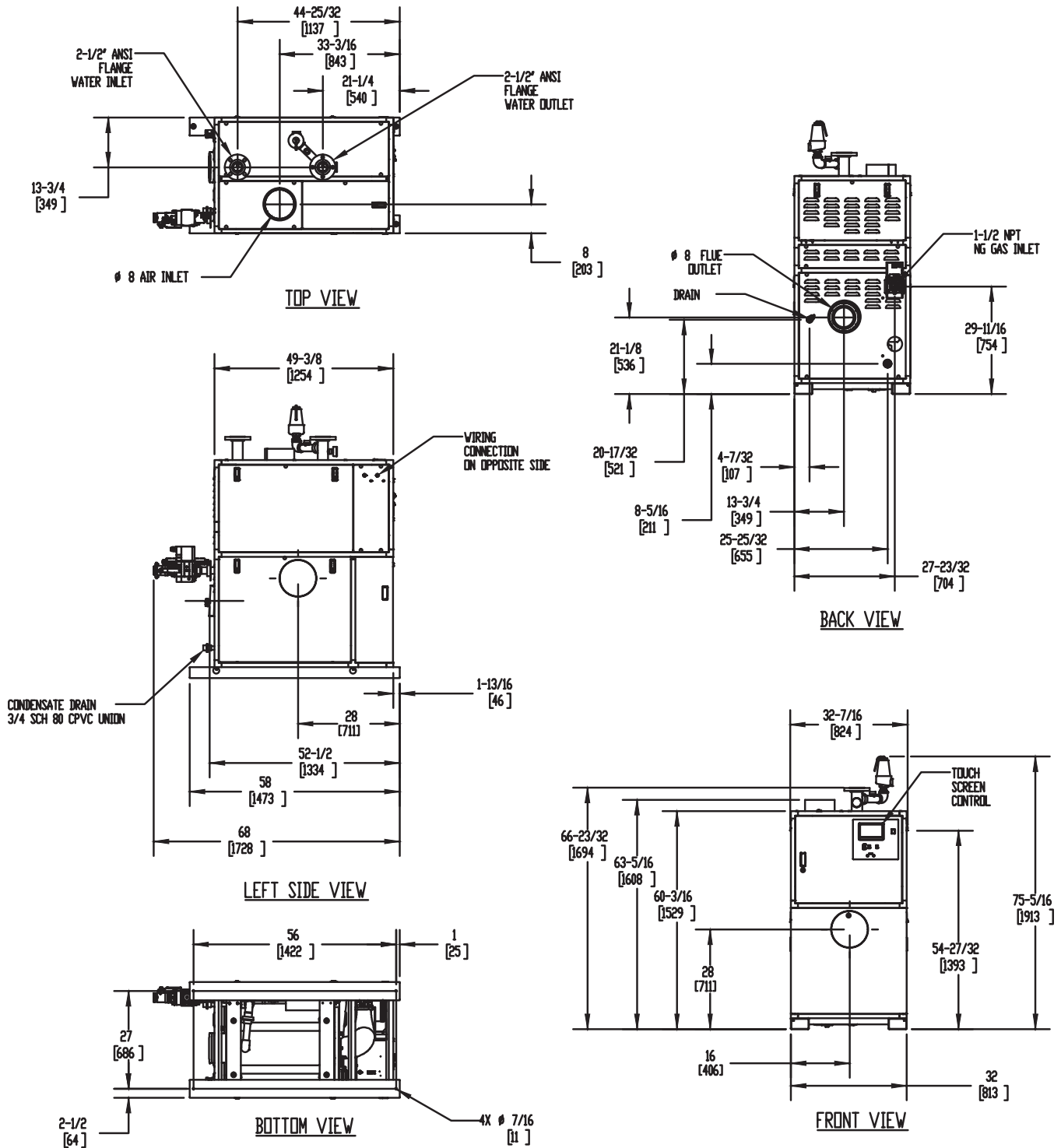
(see Installation and Operation Manual for venting information)

## 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.
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3. All dimensions are in inches (mm).
4.  Symbol indicates center of gravity.

# TORUS 1500 VERTICAL

## Category II or Category IV Appliance

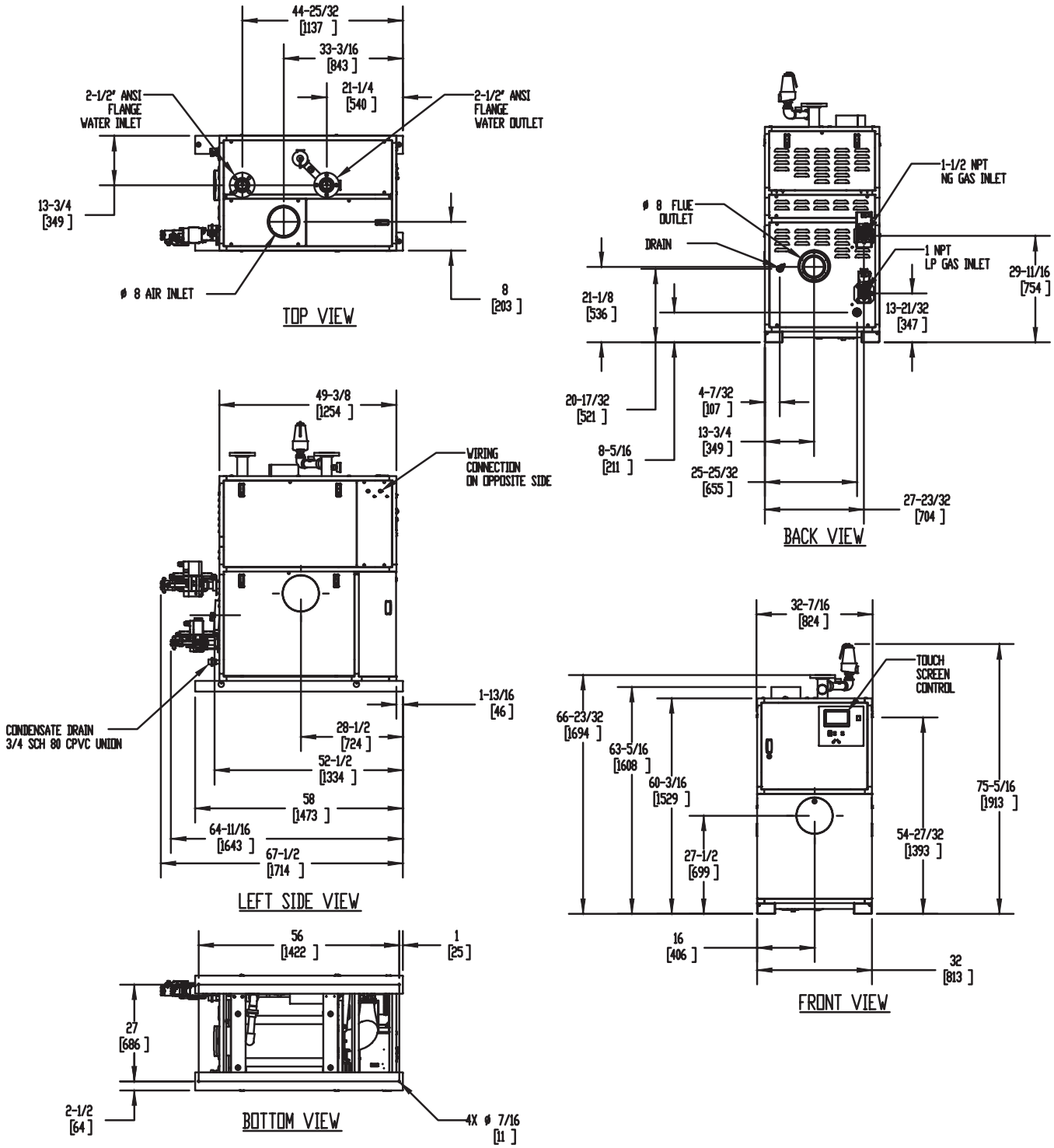
(see Installation and Operation Manual for venting information)

## CODE OPTIONS

CSD-1

FIRMWARE W/REMOTE TEST  
MANUAL RESET LWCO

## 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

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

# BOILER TRIM & CONTROLS

Main Gas Valve	Dungs MBC	Air Switch	Huba
Firing Valve	1" 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	1 1/2" Apollo	Relief Valve (WB)	1" x 1-1/4" set @ 50 psi
Pump contactor strongly recommended for water heater applications.		Relief Valve (WW)	1" x 1" set @ 125 psi

# A.S.M.E.

ASME Sect IV Fire Side	119.8 Sq. Ft. / 11.13 Sq. M.	Design Data	Max. 160 psig & 210°F
Htg Surface		Water Volume	13 gal. / 49.2 Liters
ASME Sect IV Water Side	111.08 Sq. Ft. / 10.32 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				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

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

# TORUS 2000 VERTICAL

## Category II or Category IV Appliance

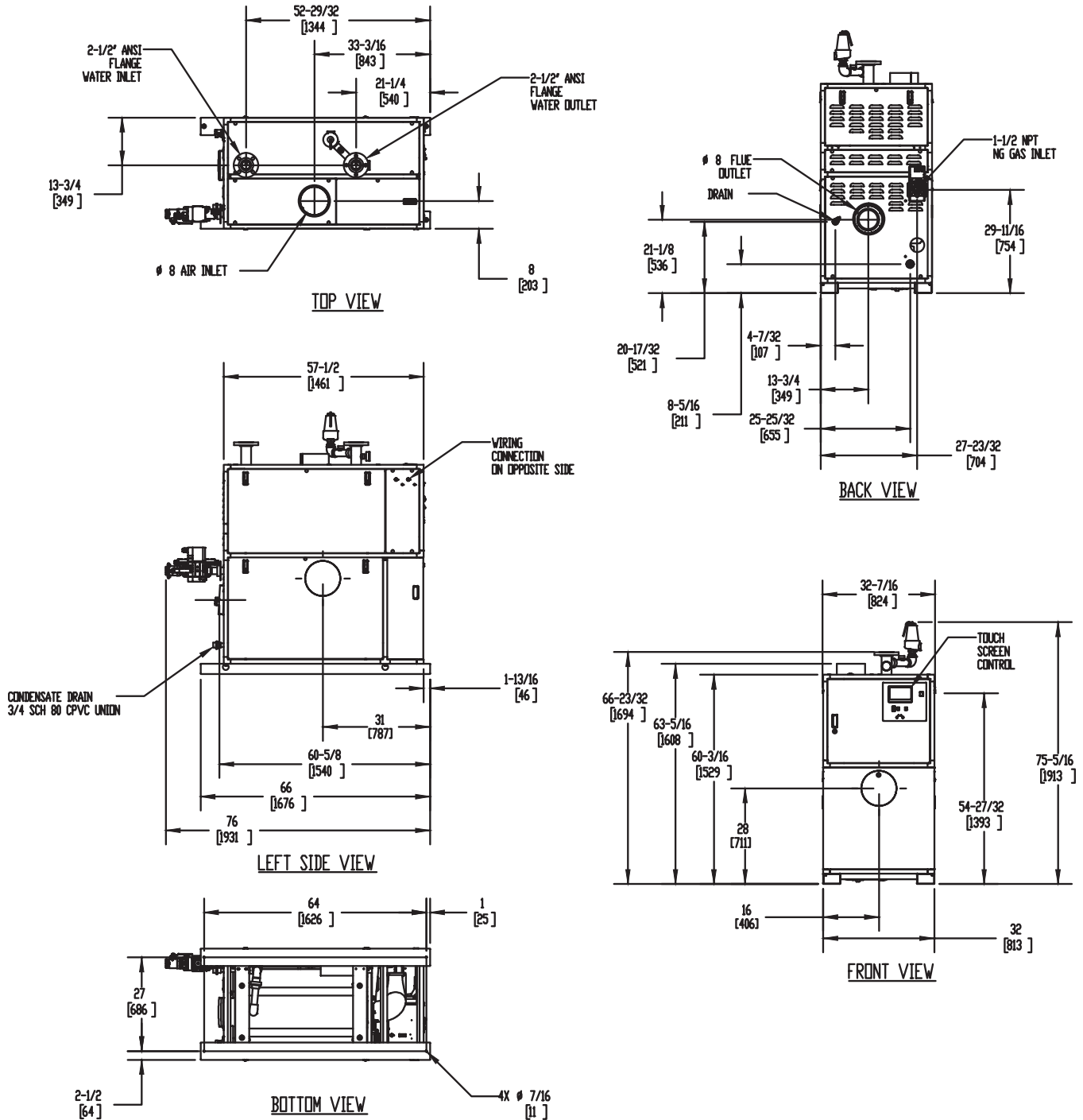
(see Installation and Operation Manual for venting information)

## CODE OPTIONS

CSD-1

FIRMWARE W/REMOTE TEST  
MANUAL RESET LWCO

## INDOOR UNIT



### Notes:

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# TORUS 2000 VERTICAL

## Category II or Category IV Appliance

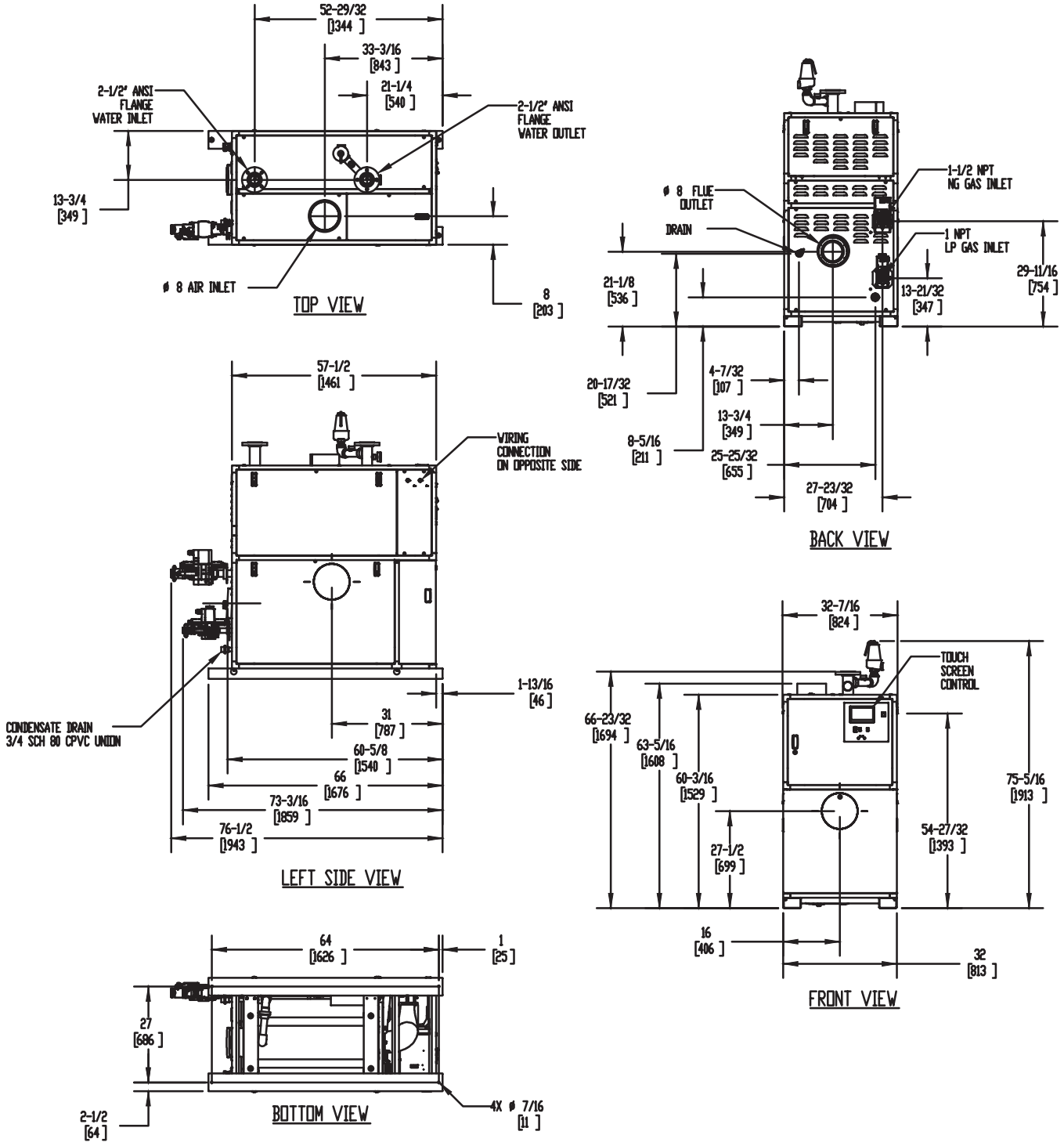
(see Installation and Operation Manual for venting information)

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MANUAL RESET LWCO

## DUAL FUEL UNIT



### Notes:

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## BOILER CERTIFIED RATINGS & CAPACITIES

<b>Fuel Type</b>	Natural/Propane Gas	<b>Boiler FLA</b>	25.6
<b>Input BTU/hr.</b>	1,999,000 / 586 kW	<b>Boiler HP</b>	57.66
<b>Output BTU/hr.</b>	1,929,035 / 565 kW	<b>Min. Gas Pressure Required</b>	4"W.C.
<b>Electrical Requirements</b>	230 VAC/60 Hz/1PH	<b>Max. Gas Pressure Allowed</b>	14" W.C.
		<b>Operating Weight</b>	1388 lbs / 630 kg

## BOILER TRIM & CONTROLS

<b>Main Gas Valve</b>	Dungs MBC	<b>Air Switch</b>	Huba
<b>Firing Valve</b>	1 1/2" 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>	153.19 Sq. Ft. / 14.23 Sq. M.	<b>Design Data</b>	Max. 160 psig & 210°F
<b>Htg Surface</b>		<b>Water Volume</b>	16.9 gal. / 64 Liters
<b>ASME Sect IV Water Side</b>	141.93 Sq. Ft. / 13.19 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
193.0	12.2	22.3	66.5	128.7	8.1	9.9	29.7	96.5	6.1	6.1	18.2	77.2	4.9	4.2	12.5	64.3	4.1	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
64.3	193.0	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
5819	21997	3880	14665	2910	10999	2328	8799	1940	7332	1663	6285

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
153.5	9.7	14.1	42.1	204.6	12.9	25.0	74.7

<b>REP FIRM</b>	_____	<div><b>TORUS 2000 VERTICAL</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  (413) 564-5515 </div>
<b>SUBMITTED BY</b>	_____	
<b>JOB NAME</b>	_____	
<b>ARCHITECT</b>	_____	
<b>ENGINEER</b>	_____	
<b>CONTRACTOR</b>	_____	
<b>DATE</b>	_____	

# TORUS 2500 VERTICAL

## Category II or Category IV Appliance

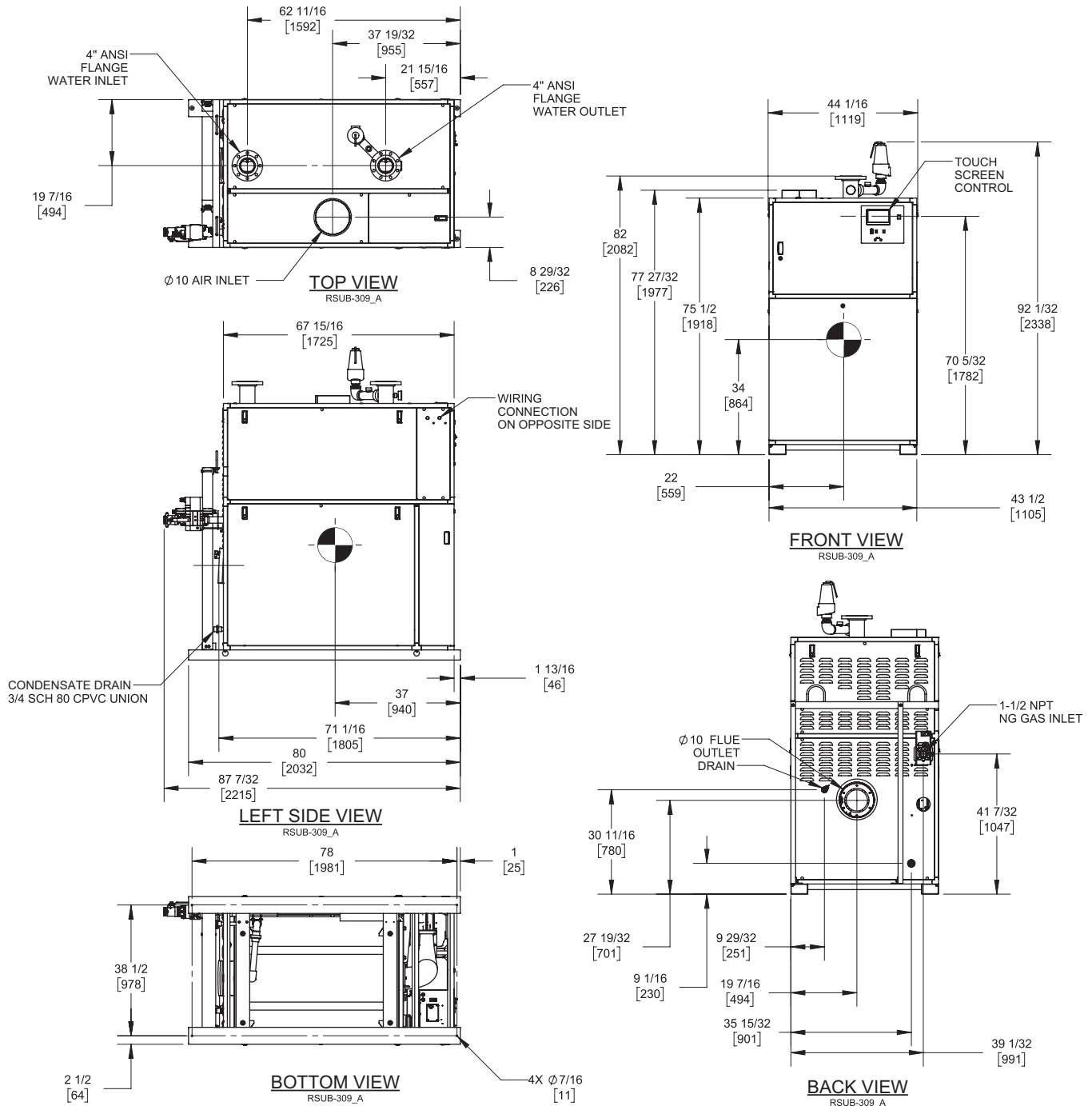
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## CODE OPTIONS

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MANUAL RESET LWCO

## INDOOR UNIT



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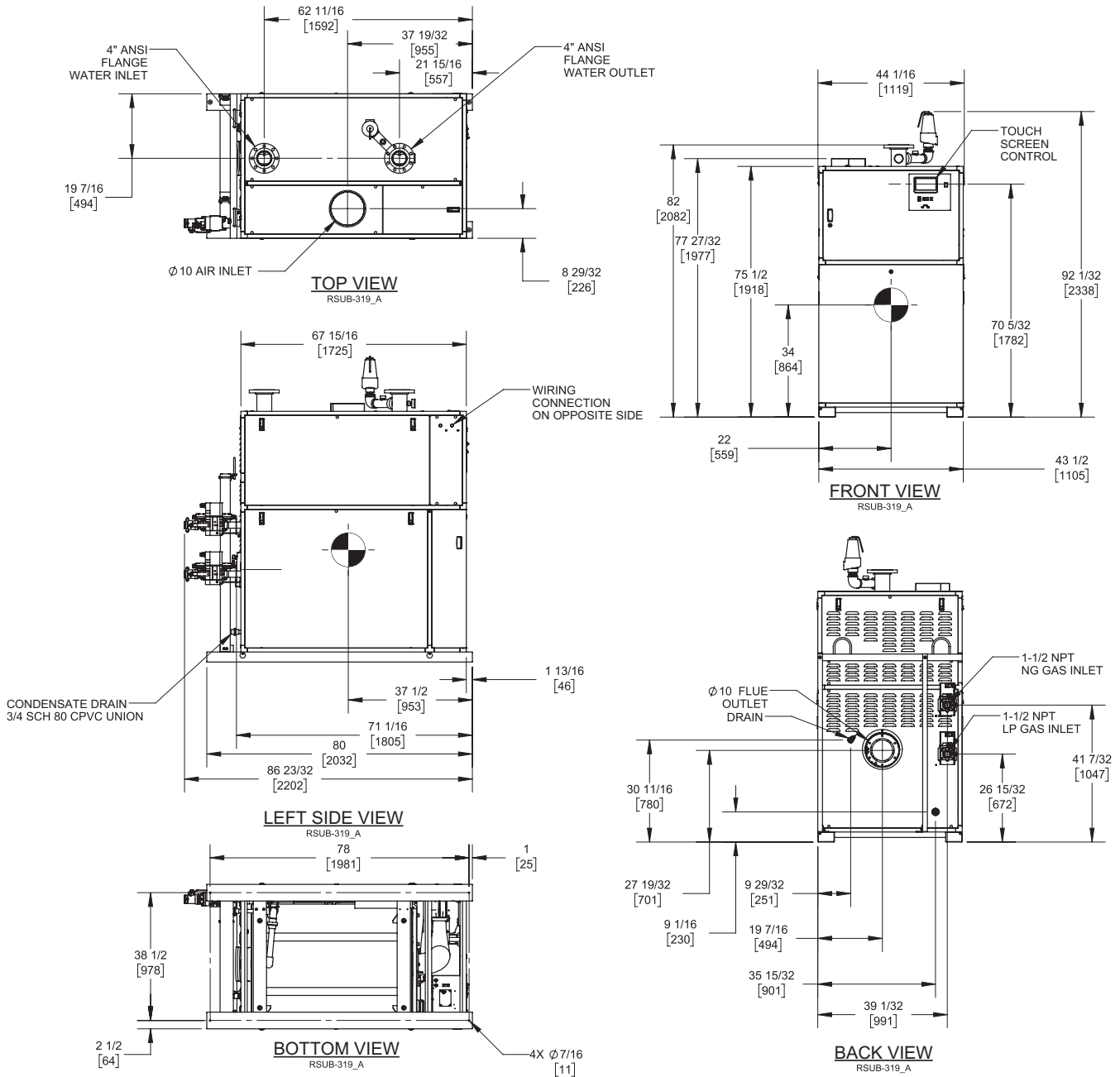
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MANUAL RESET LWCO

## DUAL FUEL UNIT



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4. Symbol indicates center of gravity.

# BOILER CERTIFIED RATINGS & CAPACITIES

Fuel Type	Natural/Propane Gas	Boiler FLA	15.05*
Input BTU/hr.	2,500,000 / 733 kW	Boiler HP	72.45
Output BTU/hr.	2,435,000 / 713 kW	Min. Gas Pressure Required	4"W.C.
Electrical Requirements	230 VAC/60 Hz/3PH	Max. Gas Pressure Allowed	14" W.C.
		Operating Weight	2311 lbs / 1048 kg

# BOILER TRIM & CONTROLS

Main Gas Valve	Dungs MBC	Air Switch	Huba
Firing Valve	1 1/2" 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	1 1/2" 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	300.69 Sq. Ft. / 27.94 Sq. M.	Design Data	Max. 160 psig & 210°F
Htg Surface		Water Volume	24.9 gal. / 94.3 Liters
ASME Sect IV Water Side	277.23 Sq. Ft. / 25.76 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				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
243.8	15.4	17.2	51.5	162.6	10.3	9.2	27.4	121.9	7.7	6.2	18.4	97.5	6.2	4.5	13.5	81.3	5.1	3.5	10.4
Flow GPM (Boiler)				Temp. Rise (°F) (Boiler**)				Vent Length (Equiv. Ft.)				Air Inlet Length (Equiv. Ft.)							
Min		Max		Min		Max		Min		Max		Min		Max					
81.3		243.8		20		60		10		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
7278	27511	4852	18340	3639	13755	2911	11004	2426	9170	2079	7860

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
239.4	15.1	16.6	49.6	319.2	20.1	29.6	88.5

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SUBMITTED BY	_____	
JOB NAME	_____	
ARCHITECT	_____	
ENGINEER	_____	
CONTRACTOR	_____	
DATE	_____	

# TORUS 3000 VERTICAL

## Category II or Category IV Appliance

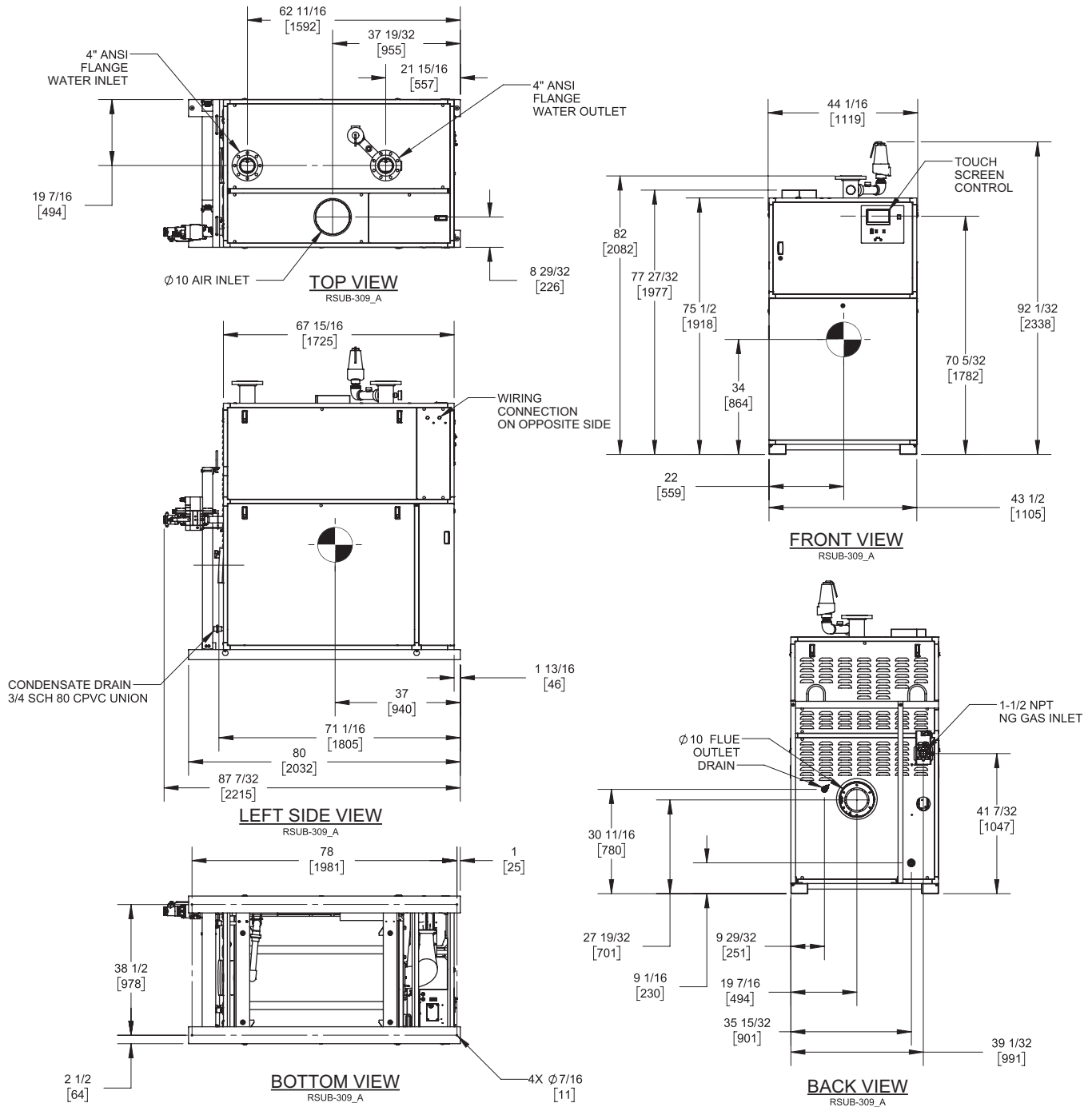
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### CODE OPTIONS

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MANUAL RESET LWCO

## INDOOR UNIT



### Notes:

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## Category II or Category IV Appliance

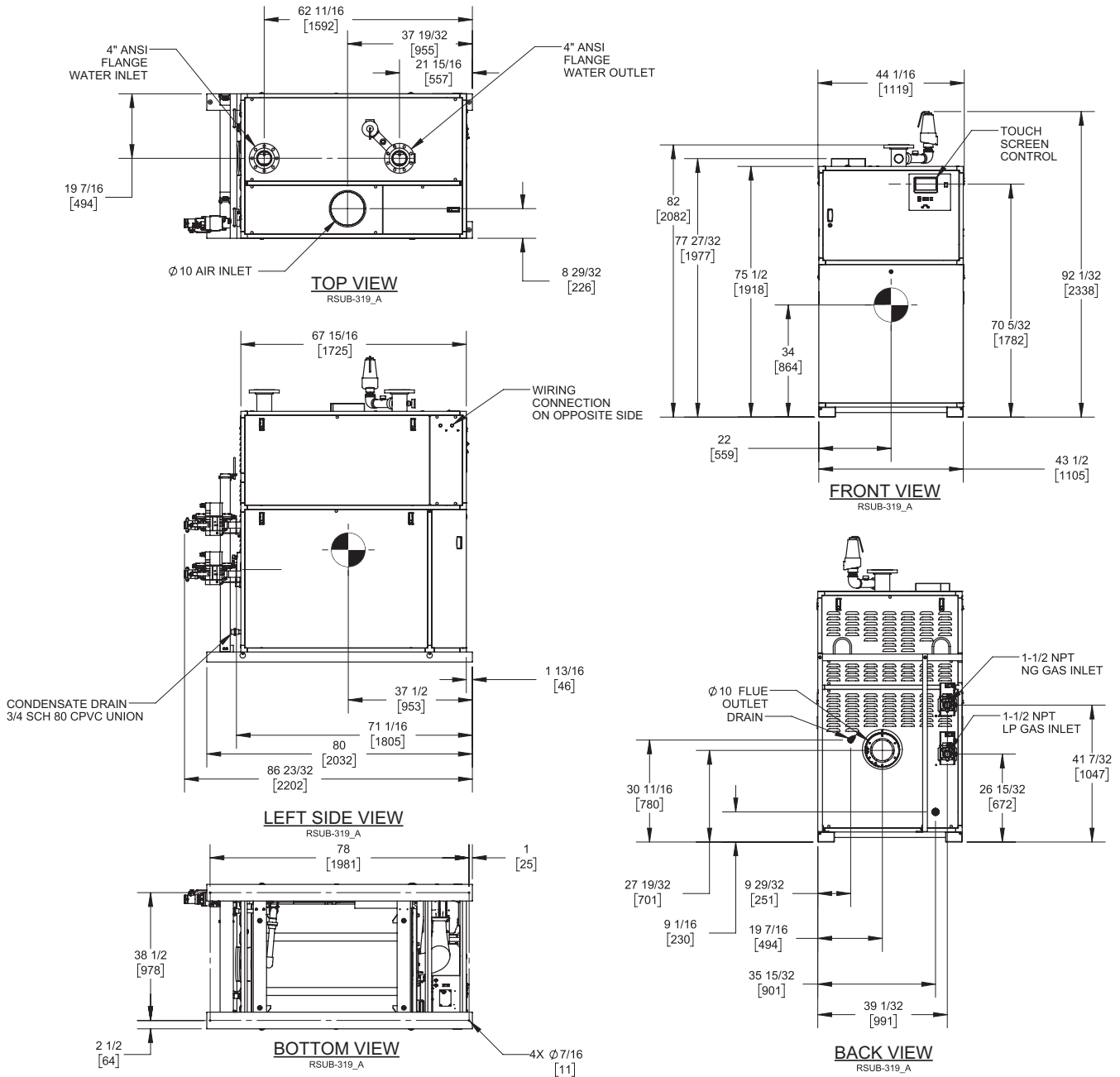
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### Notes:

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>	15.05*
<b>Input BTU/hr.</b>	3,000,000 / 879 kW	<b>Boiler HP</b>	87.39
<b>Output BTU/hr.</b>	2,925,000 / 857 kW	<b>Min. Gas Pressure Required</b>	4"W.C.
<b>Electrical Requirements</b>	230 VAC/60 Hz/3PH	<b>Max. Gas Pressure Allowed</b>	14" W.C.
		<b>Operating Weight</b>	2311 lbs / 1048 kg

## BOILER TRIM & CONTROLS

<b>Main Gas Valve</b>	Dungs MBC	<b>Air Switch</b>	Huba
<b>Firing Valve</b>	1 1/2" 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 1/2" set @ 50 psi
Pump contactor strongly recommended for water heater applications.		<b>Relief Valve (WW)</b>	1 1/2" x 1 1/2" set @ 125 psi

## A.S.M.E.

<b>ASME Sect IV Fire Side</b>	300.69 Sq. Ft. / 27.94 Sq. M.	<b>Design Data</b>	Max. 160 psig & 210°F
<b>Htg Surface</b>		<b>Water Volume</b>	24.9 gal. / 94.3 Liters
<b>ASME Sect IV Water Side</b>	277.23 Sq. Ft. / 25.76 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
292.6	18.5	24.8	74.3	195.1	12.3	11.8	35.3	146.3	9.2	7.9	23.7	117.0	7.4	5.8	17.4	97.5	6.2	4.5	13.5
Flow GPM (Boiler)				Temp. Rise (°F) (Boiler**)				Vent Length (Equiv. Ft.)				Air Inlet Length (Equiv. Ft.)							
Min		Max		Min		Max		Min		Max		Min		Max					
97.5		292.6		20		60		10		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
8824	33353	5882	22235	4412	16676	3529	13341	2941	11118	2521	9529

### 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
239.4	15.1	16.6	49.6	319.2	20.1	19.6	58.6

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

## TORUS 3000 VERTICAL

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



A Division of Mestek, Inc.  
 Westfield, MA 01085  
 (413) 564-5515

# TORUS 4000 VERTICAL

## Category II or Category IV Appliance

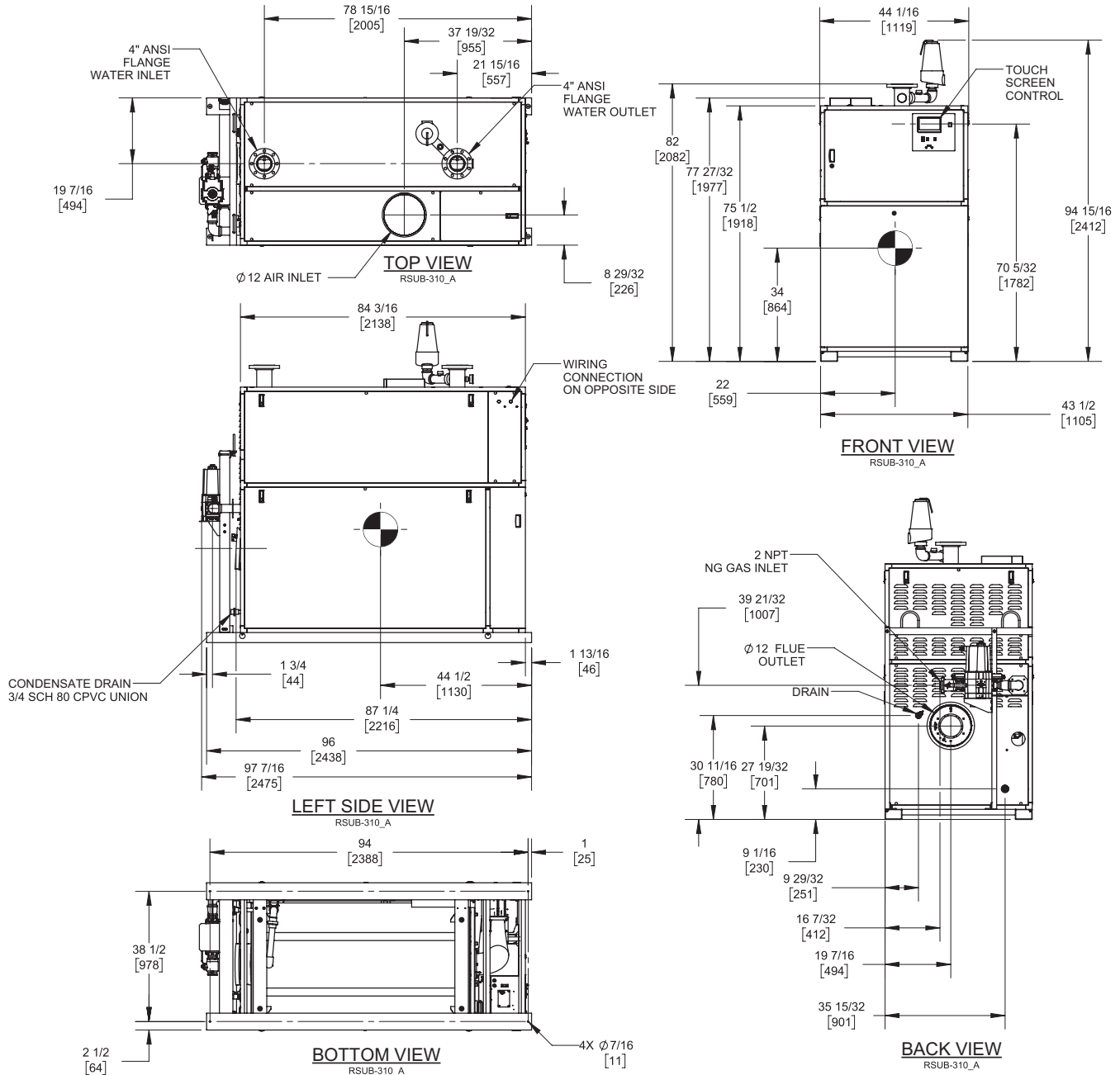
(see Installation and Operation Manual for venting information)

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



# TORUS 4000 VERTICAL

## Category II or Category IV Appliance

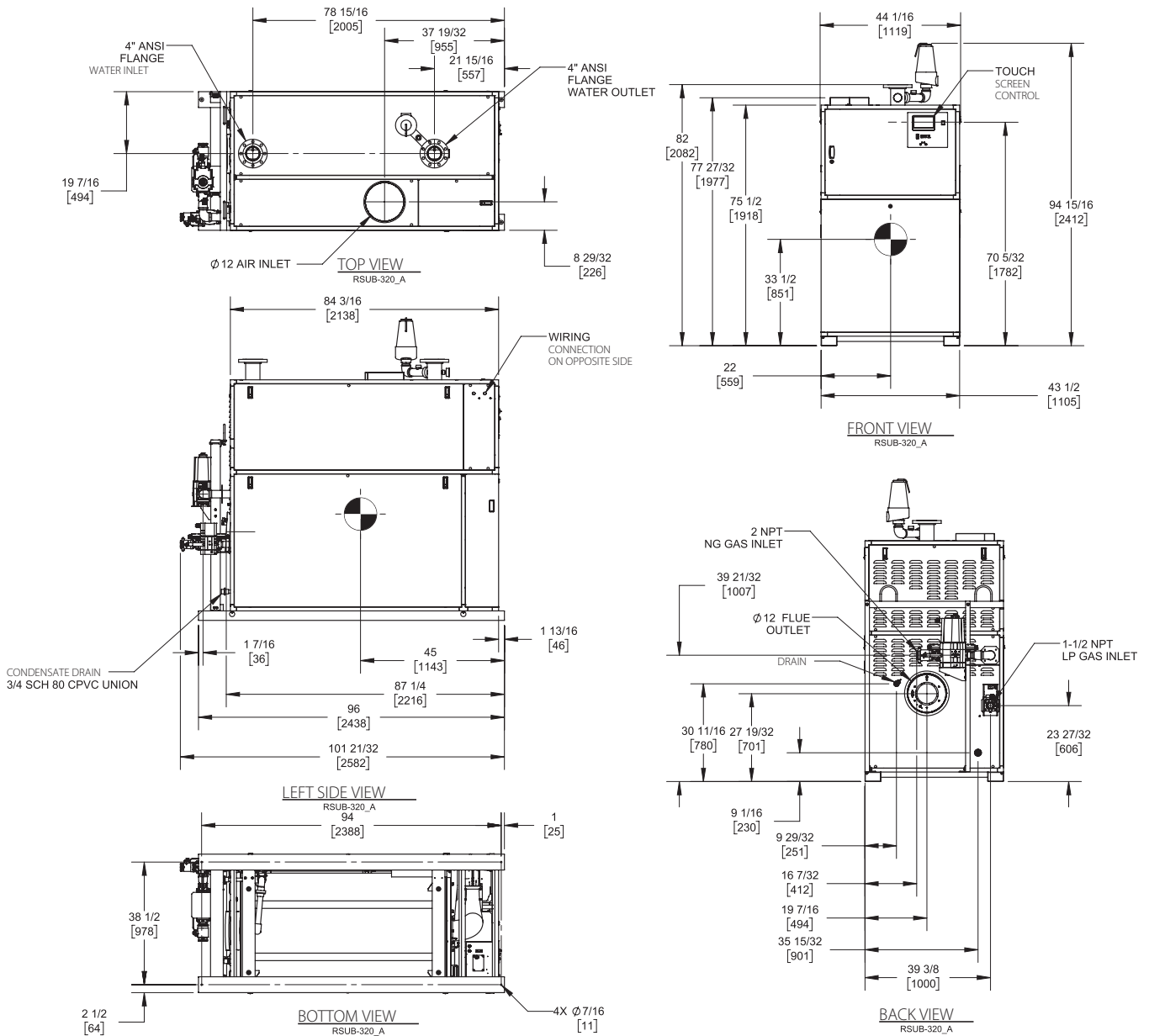
(see Installation and Operation Manual for venting information)

## CODE OPTIONS

CSD-1

FIRMWARE W/REMOTE TEST  
MANUAL RESET LWCO

## DUAL FUEL 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.

## BOILER CERTIFIED RATINGS & CAPACITIES

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

## BOILER TRIM & CONTROLS

<b>Main Gas Valve</b>	Dungs MBC	<b>Air Switch</b>	Huba
<b>Firing Valve</b>	2" 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>	2" Apollo	<b>Relief Valve (WB)</b>	1" x 1 1/2" set @ 50 psi
Pump contactor strongly recommended for water heater applications.		<b>Relief Valve (WW)</b>	1 1/2" x 1 1/2" set @ 125 psi

## A.S.M.E.

<b>ASME Sect IV Fire Side</b>	402.93 Sq. Ft. / 37.43 Sq. M.	<b>Design Data</b>	Max. 160 psig & 210°F
<b>Htg Surface</b>		<b>Water Volume</b>	41.3 gal. / 156.3 Liters
<b>ASME Sect IV Water Side</b>	371.25 Sq. Ft. / 34.49 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
390.2	24.6	26.0	77.7	260.1	16.4	11.5	34.5	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 GPM (Boiler)				Temp. Rise (°F) (Boiler**)				Vent Length (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					

\*\* 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
294.7	18.6	14.8	44.2	392.9	24.8	26.4	78.9

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

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