

# TORUS 300

## Category II or Category IV Appliance

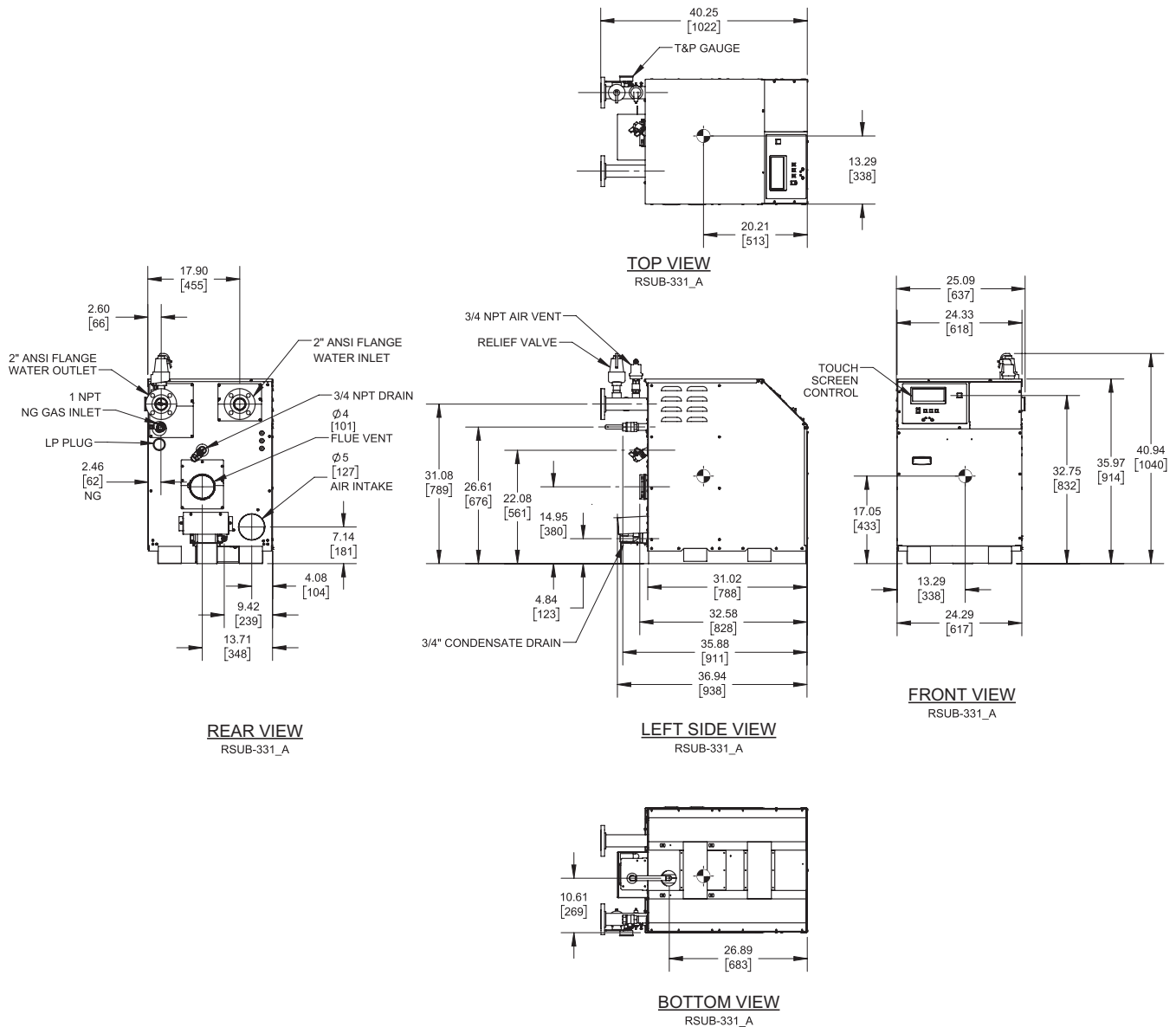
(see Installation and Operation Manual for venting information)

### 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.

## 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>           | 406.93 lbs / 184.58 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 |               |     |               |     |
| 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 |

|                     |       |                                                                                                                       |
|---------------------|-------|-----------------------------------------------------------------------------------------------------------------------|
| <b>REP FIRM</b>     | _____ | <b>TORUS 300</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><br>(see Installation and Operation Manual for venting information)        |
|                     |       | <b>RBI®</b> A Division of Mestek, Inc.<br>Westfield, MA 01085<br>(833) 265-5371<br><b>RELIABLE. BOLD. INNOVATIVE.</b> |

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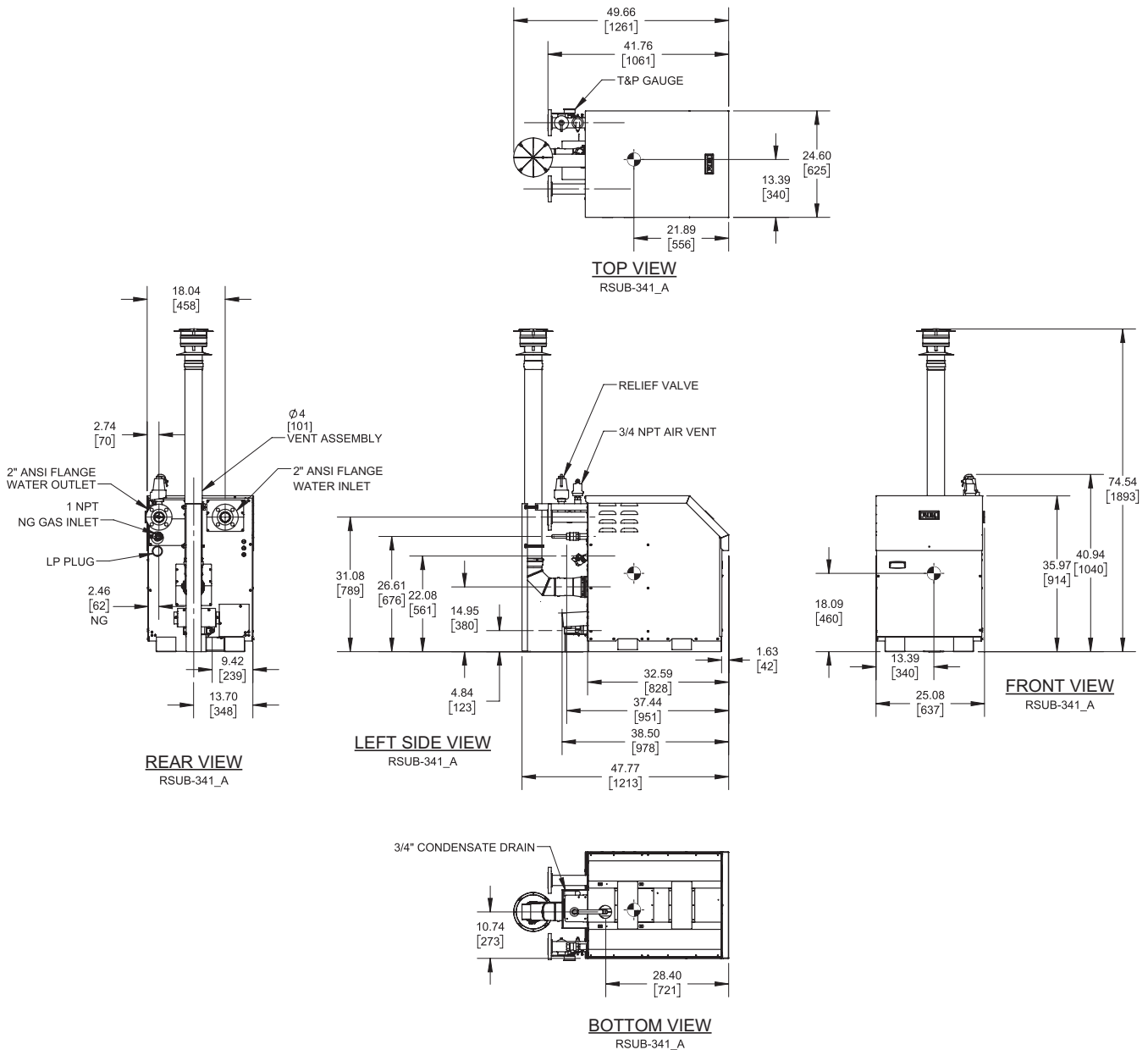
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| <b>Output BTU/hr.</b>          | 291,000 / 85.28 kW  | <b>Min. Gas Pressure Required</b> | 4"W.C.                 |
| <b>Electrical Requirements</b> | 120 VAC/60 Hz/1PH   | <b>Max. Gas Pressure Allowed</b>  | 14" W.C.               |
|                                |                     | <b>Operating Weight</b>           | 432.37 lbs / 196.12 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                      |
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| 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)

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| 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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