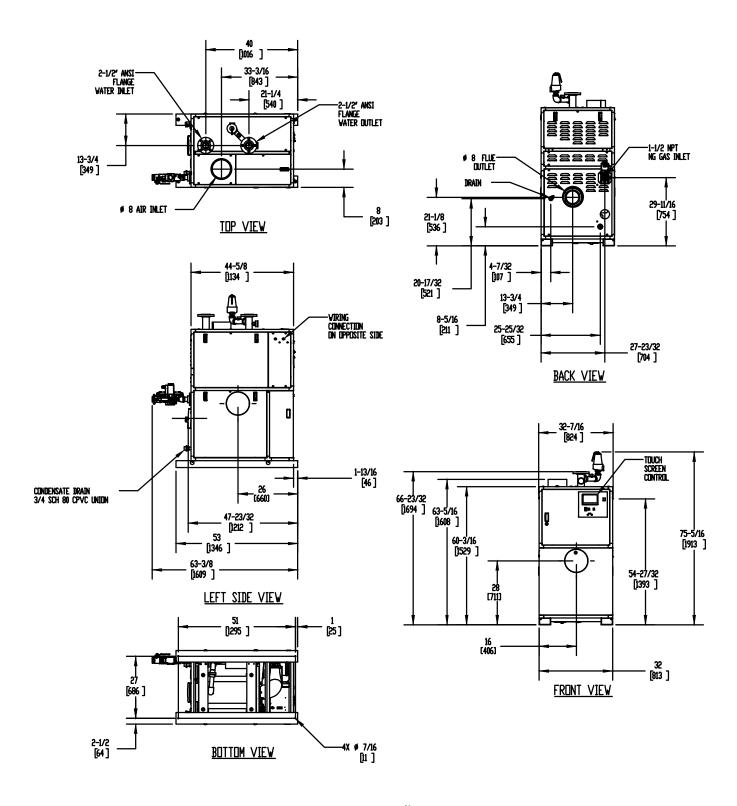
# **TORUS 1250 VERTICAL**

**Category II or Category IV Appliance** 

(see Installation and Operation Manual for venting information)

## **INDOOR UNIT**



#### Notes:

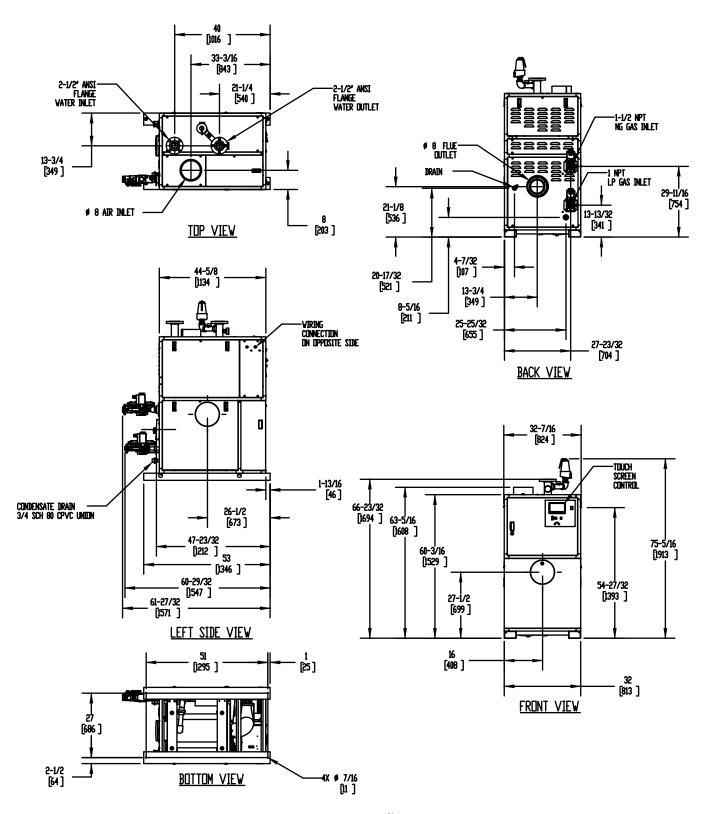
- Dimensions are approximate and should not be used to "rough-in" equipment.
- Dimensions are subject to change without notice.
   All dimensions are in inches (mm).
   Symbol indicates center of gravity.

# **TORUS 1250 VERTICAL**

**Category II or Category IV Appliance** 

(see Installation and Operation Manual for venting information)

## **DUAL FUEL UNIT**



#### Notes:

- 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                 | 17.14*            |
|-------------------------|---------------------|----------------------------|-------------------|
| Input BTU/hr.           | 1,250,000 / 366 kW  | Boiler HP                  | 36.04             |
| Output BTU/hr.          | 1,206,250 / 353 kW  | Min. Gas Pressure Required | 4"W.C.            |
| Electrical Requirements | 120 VAC/60 Hz/1PH   | Max. Gas Pressure Allowed  | 14" W.C.          |
|                         |                     | Operating Weight           | 1084 lbs / 492 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  | 100.17 Sq. Ft. / 9.31 Sq. M. | Design Data  | Max. 160 psig & 210°F |
|-------------------------|------------------------------|--------------|-----------------------|
| Htg Surface             |                              | Water Volume | 11 gal. / 41.6 Liters |
| ASME Sect IV Water Side | 92.93 Sq. Ft. / 8.63 Sq. M.  | pH Level     | 6.5-8.5               |
| Htg Surface             |                              |              |                       |

<sup>\*</sup> Add circulator amps.

40.2

### **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 |         |           |     |        |         |
|-----------|-------------------------------------|----------|---------|---------------|-------------------|---------|--------------------------|------|-----------------|---------------|--------|-----------|-----------|---------------|---------|-----------|-----|--------|---------|
| Flo<br>Ra |                                     | Pressu   | re Drop |               | ow<br>ate         | Pressui | e Drop                   |      | ow<br>ite       | Pressur       | e Drop |           | ow<br>ite | Pressu        | re Drop | Flo<br>Ra |     | Pressu | re 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 Le |         | Vent Length (Equiv. Ft.) |      | Air Inlet Lengt |               | Length | (Equiv. F | -t.)      |               |         |           |     |        |         |
|           | Min                                 |          | Max     |               |                   | Min     |                          | Max  |                 |               | Min    |           | Max       | (             | Min Max |           |     | (      |         |

<sup>\*\*</sup> Min/Max delta t reflects boiler operation at full input. For applications requiring operation above/below these parameters please consult factory.

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### WATER HEATER HOURLY RECOVERY CAPACITY (GPH & LPH)

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120.7

| 40°F | 22°C  | 60°F | 33℃  | 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 |

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Water Heater Min Flow Rates

|       | Normal (4 | to 12) gpg |         | Hard (12 to 15) gpg     |     |      |      |  |  |
|-------|-----------|------------|---------|-------------------------|-----|------|------|--|--|
| Flow  | Rate      | Pressur    | re 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 IV Appliance**

(see Installation and Operation Manual for venting information)



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