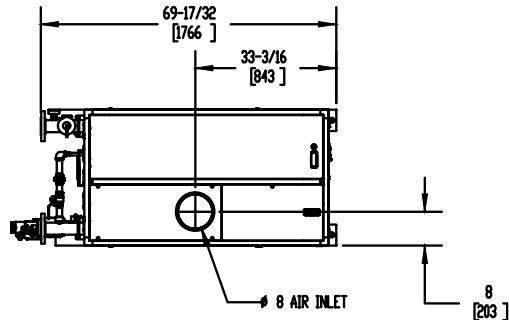


# TORUS 2000 DUAL FUEL

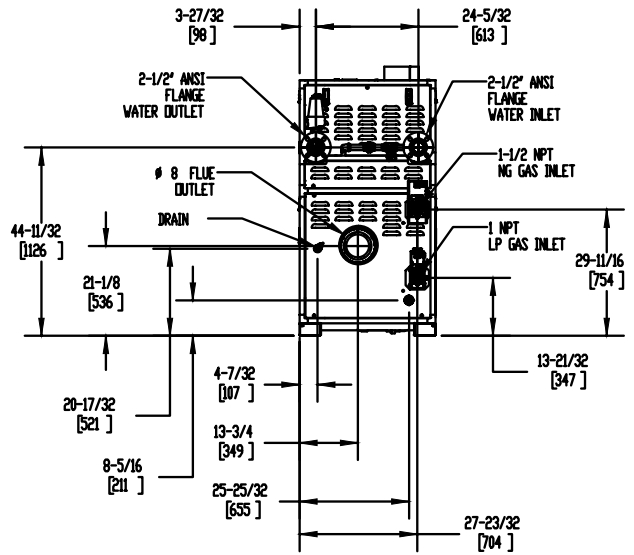
## Category II or Category IV Appliance

(see Installation and Operation Manual for venting information)

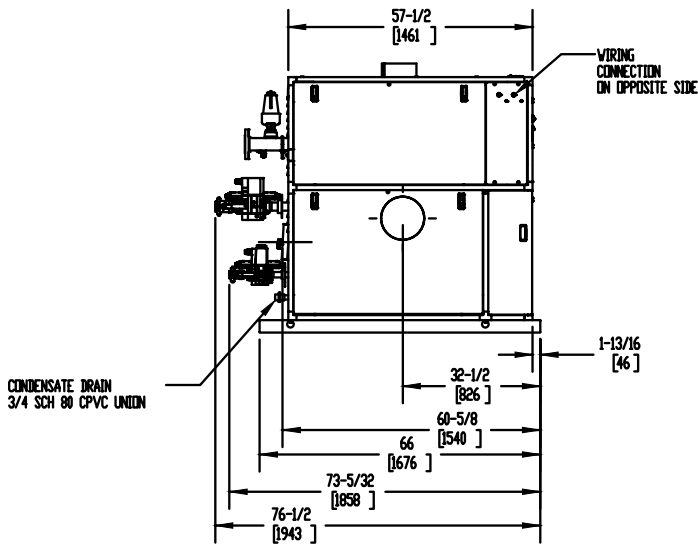
## INDOOR UNIT



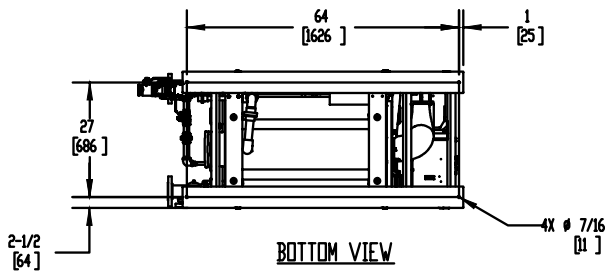
TOP VIEW



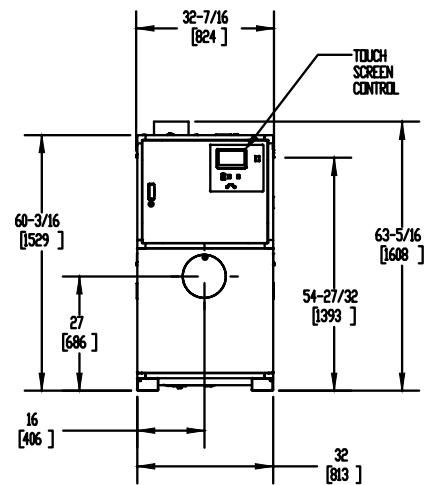
BACK VIEW



LEFT SIDE VIEW



BOTTOM VIEW



FRONT VIEW

### 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>                 | 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 |

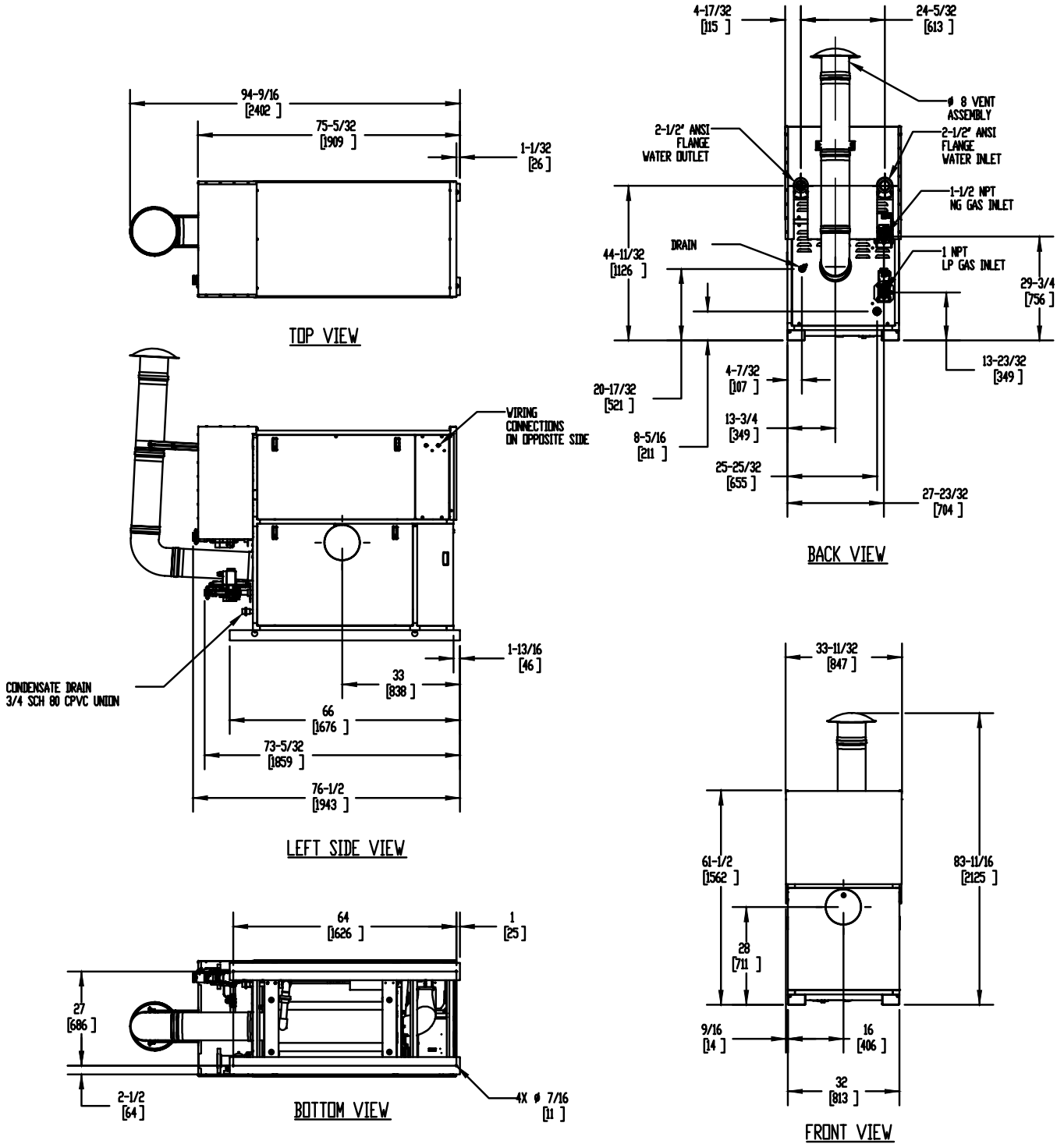
|                     |       |                                                                                                                         |
|---------------------|-------|-------------------------------------------------------------------------------------------------------------------------|
| <b>REP FIRM</b>     | _____ | <b>TORUS 2000 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><br>(see Installation and Operation Manual for venting information)          |
|                     |       |  <b>RELIABLE. BOLD. INNOVATIVE.</b> |
|                     |       | A Division of Mestek, Inc.<br>Westfield, MA 01085<br>(833) 265-5371                                                     |

# TORUS 2000 DUAL FUEL

## Category II or Category IV Appliance

(see Installation and Operation Manual for venting information)

## 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.

## 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>          | 1,925,037 / 564 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 |
| 192.6         | 12.1 | 22.2          | 66.2 | 128.4         | 8.1 | 9.9           | 29.6 | 96.3          | 6.1 | 6.1           | 18.1 | 77.0          | 4.9 | 4.2           | 12.5 | 64.2          | 4.0 | 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 |  |
| 64.2              |  | 192.6 |  | 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 |

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

## TORUS 2000 DUAL FUEL

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



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