

# INDIRECT FIRED WATER BATH

## IFWB VAPORIZERS

**Thermax Indirect Fired Water Bath Vaporizers** are typically used for satellite and/or peak sharing LNG locations, oxygen, nitrogen, argon or CO2 bulk gas supply installations and large nitrogen/oxygen plant backup systems. The water bath provides a heat sink to baseload and assure smooth and continuous operation even in case of power failure. Stationary and trailer mounted mobile units are available for “Virtual Pipeline” applications.

IFWB vaporizers consist of a Thermax Vortex-Flow™ vaporizing tube bundle that is submerged in a water bath. The water bath is indirectly heated and temperature controlled by hot combustion gases flowing through the Thermax Vortex-Flow™ submerged fire tube. The unit comes complete with fuel train, burner(s), blower(s), ASME code stamped tube bundle, water bath shell, and controls. The burner and blower are enclosed in a weather protective shed.

### STANDARD FEATURES

- ASME Sect VIII Div 1 code stamp on bundle
- Auto-fill water level switch & valve
- Fully assembled with fuel train, blower and burner automatic control system
- NEMA 4 electrical cabinet & gas train
- On demand spark ignition with auto-reset after power outage
- Stainless steel removable tube bundle
- Temperature gauge & Sight glass
- Man-Way for easy access
- NFPA 87 – Integrated controls
- High/low water temperature sensor
- First Out Annunciation Burner Controls

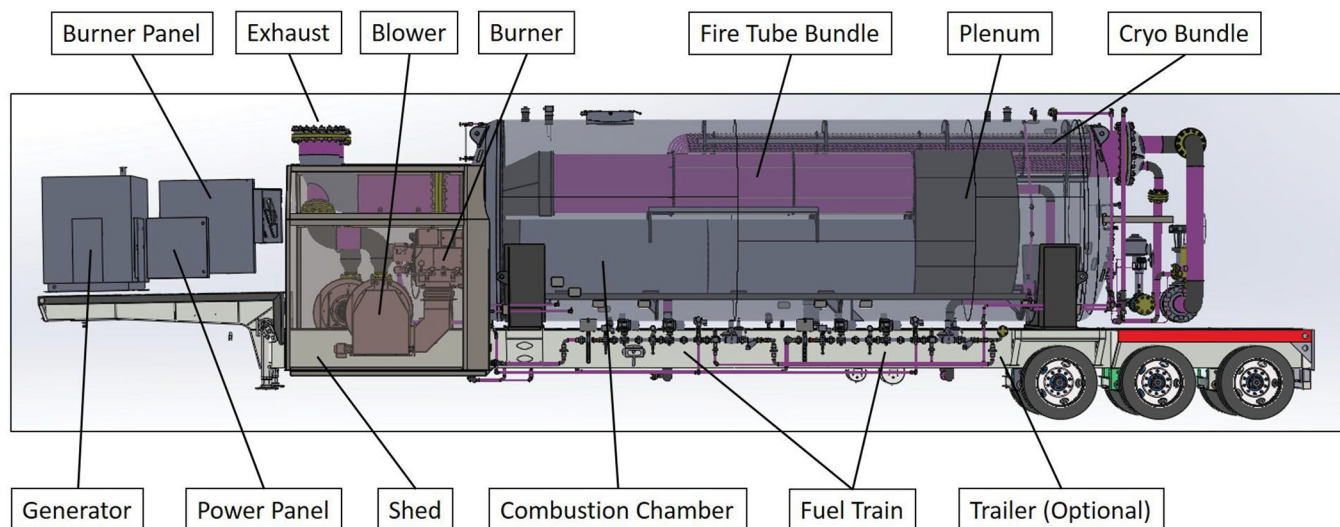


### OPTIONS

- Low NOX and Ultra-Low NOX Emission Combustion Systems
- Approval for CSA components, CRN registration
- Low/high temperature kit
- Coil bundle made from Hastelloy, Monel, Duplex or Titanium
- Fail safe process gas shut down valve
- Dual redundant burner system (lead lag or standby)
- Low temperature process gas sensor
- Oversized tanks for up to 30 minutes of ballast
- Dual process bundle
- Pressure build circuit
- Tank insulation
- Trailer Mounted Mobile Units
- Digital Output to Plant Control Room

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### PERFORMANCE:

Thermax IFWB vaporizers offer a safe and reliable cryogenic or liquefied gas source for standby or continuous operation. IFWB vaporizers go from cold start to full capacity within ten minutes of start up or instantaneously when left in standby mode.

The large capacity vaporizers have rated flows up to 6,000 MSFH (O<sub>2</sub>, N<sub>2</sub>, or LNG) in standard models. Larger capacity models are available as custom builds.

| IFWB Product Line |            |           |                                    |           |                                    |         |            |          |        |      |           |   |                |             |               |                  |        |
|-------------------|------------|-----------|------------------------------------|-----------|------------------------------------|---------|------------|----------|--------|------|-----------|---|----------------|-------------|---------------|------------------|--------|
| Model             | LNG (SCFH) |           | LOX / LN <sub>2</sub> / LAR (SCFH) |           | CO <sub>2</sub> (LB/HR) @ 200 PSIG |         | MAWP (PSI) | Burners  |        |      | NOX (PPM) |   | Mounting Style |             | Tank Diameter | Connections (PS) |        |
|                   | Min        | Max       | Min                                | Max       | Min                                | Max     |            | MMBTU/Hr | Single | Dual | 60        | 9 | Stationary     | Trailer Mtd |               | Inlet            | Outlet |
| IFWB3.0           | 43,750     | 175,000   | 50,000                             | 200,000   | 4,375                              | 17,500  | 450        | 3        | X      | X    | X         | X | X              | X           | 98"           | 2"               | 3"     |
| IFWB7.5           | 106,250    | 425,000   | 125,000                            | 500,000   | 10,625                             | 42,500  | 450        | 7.5      | X      | X    | X         | X | X              | X           | 98"           | 4"               | 6"     |
| IFWB15            | 218,750    | 875,000   | 250,000                            | 1,000,000 | 21,250                             | 85,000  | 450        | 15       | X      | X    | X         | X | X              |             | 114"          | 4"               | 6"     |
| IFWB30            | 437,500    | 1,750,000 | 500,000                            | 2,000,000 | 42,500                             | 170,000 | 275        | 30       | X      | X    | X         | X | X              |             | 134"          | 6"               | 10"    |
| IFWB60            | 875,000    | 3,500,000 | 1,000,000                          | 4,000,000 | 81,250                             | 325,000 | 275        | 60       | X      | X    | X         | X | X              |             |               |                  |        |

All tables shown on this Datasheet are intended as a guide that reflect our experience on these models. Actual performance may vary. Please call Thermax Inc. for specific applications. This product and/or data was designed and/or developed by Thermax Inc. and shall not be used in any way injurious to the interests of Thermax Inc.

Product Datasheet 8.0



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