

INDIRECT FIRED WATER BATH

IFWB VAPORIZERS



Product Datasheet **8.0**

Thermax Indirect Fired Water Bath 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. Allowable fuels include natural gas, fuel oil, propane and butane. 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 mounted in a weather protective shed.

PERFORMANCE:

Thermax IFWB vaporizers offer a safe and reliable cryogenic or liquefied gas source for standby or continuous operation. IFWB vaporizers will go from cold start to full capacity within ten minutes of start up or instantaneously if left in the standby mode. The large capacity vaporizers have rated flows up to 6,000 MSFH (O₂, N₂, or LNG) in standard models. Larger capacity models are available as custom builds. All units can be purchased with over-sized tanks to provide ballast capability for gas production 1/4 to 2 hours after burner shuts down.

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
- Thermax proven Vortex Flow action
- Vent / Man-Way with flapper
- IR Fuel Train and Controls



Options

- Low NOX and Ultra-Low NOX Emission Combustion Systems
- ASME code stamp on tank
- Approval for CSA components, CRN registration, PED & SQL
- Coil bundle made from Hasteloy, Monel, Duplex or Titanium
- Fail safe process gas shut down valve
- Extra back-up burner, steam or electric available in the same tank
- High/Low water temp sensor
- Outlet gas temperature control system
- Low temperature liquid breakthrough sensor
- Oversized tanks for 15 minutes to 2 hours ballast
- Pressure build circuit
- Tank insulation
- Trailer Mounted Mobile Units
- First Out Annunciation Burner Controls
- Digital Output to Plant Control Room
- Access Walkways and Catwalks



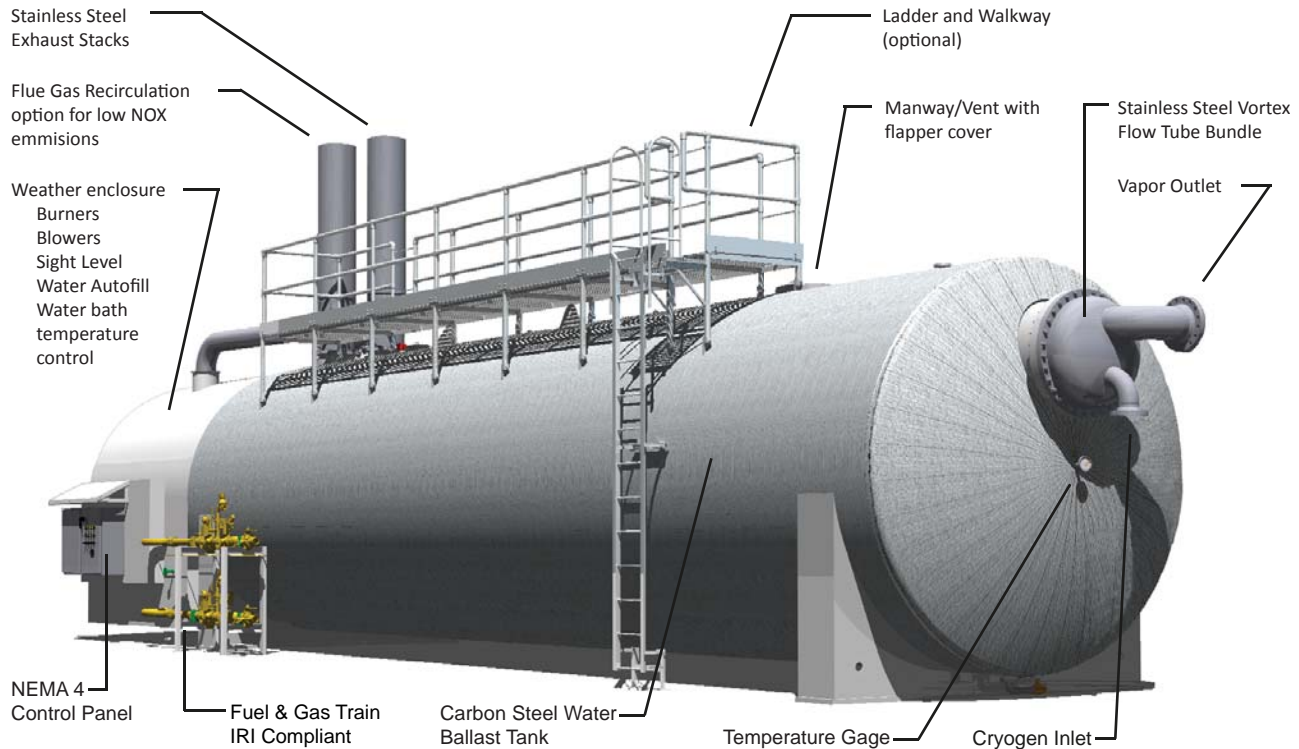
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Possible design codes, available upon request.

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IFWB Vaporizer

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. Trailer Mounted mobile units are available for “Virtual Pipeline” Applications.

Standard Model Ratings*

Model No.	MSCFH	Lbs/Hrs.		MSCFH	Blower H.P.	Approximate Dimensions (feet) (w/o stack) H x W x L	Shipping Weight (lbs)	Connections IPS (inches)	
	N2/O2	CO2	Propane					LNG	IN
IFWB 50 H	50	5,000	2,500	40	1/2	6 x 5 x 22	5,000	3/4	1
IFWB 75 H	75	7,500	3,750	60	1	6 x 5 x 22	5,500	1	1 1/2
IFWB 100 H	100	10,000	5,000	80	2	6 x 5 x 25	7,000	1	2
IFWB 50 V	50	5,000	2,500	40	1/2	6 x 6 x 22	5,000	3/4	1
IFWB 75 V	75	7,500	3,750	60	1	6 x 6 x 22	5,500	1	1 1/2
IFWB 100 V	100	10,000	5,000	80	2	6 x 6 x 22	7,000	1	2
IFWB 150	150	15,000	7,500	120	3	6.5 x 6 x 25	8,000	1	2
IFWB 200	200	20,000	10,000	160	3	7 x 6 x 25	14,000	2	3
IFWB 300	300	30,000	15,000	240	5	7.5 x 6.8 x 30	20,000	2	3
IFWB 400	400	40,000	20,000	320	10	8.5 x 7.2 x 40	30,000	3	4
IFWB 500	500	50,000	25,000	400	10	8.5 x 7.2 x 40	30,000	3	4
IFWB 700	700	70,000	35,000	560	20	10 x 8.5 x 50	35,000	4	6
IFWB 1000	1,000	100,000	50,000	800	30	9.5 x 8.5 x 50	40,000	4	6
IFWB 1500	1,500	150,000	75,000	1,200	40	10 x 8.5 x 50	50,000	6	8
IFWB 2000	2,000	200,000	100,000	1,600	75	10 x 8.5 x 60	80,000	6	10
IFWB 4000	4,000	400,000	200,000	3,200	2 X 75	12 x 14.2 x 70	110,000	8	12

* Decrease ratings 10% on Glycol Anti-Freeze baths

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.