

## TVN Automatic Direct Steam Vaporizers

Units Feature Thermax's Unique Vortex-Flow™ Vaporizing Tubes for Enhanced Heat Transfer & Reduced Surge



**Thermax Direct Steam Vaporizers** are economic, fully engineered and assembled units that work with all cryogenic liquids and liquefied gases. The high heat transfer rate allows for a very compact unit design. TVN vaporizers feature Thermax's Vortex-Flow™ tube bundle that increase heat transfer and permit surge free operation. Liquefied gas is vaporized and superheated in the tube bundle by condensing steam in the steam chamber. The outlet gas temperature is controlled by regulating the steam flow to the chamber. A pneumatic temperature controller sends a signal to throttle the steam control valve while condensate drains through a steam trap.

### Options

- α Custom designs
- α Block and Bypass valves
- α Digital temperature controllers
- α Low temp shutdown valves and controllers
- α Pressure Build Circuit
- α Stainless steel shell
- α Thermax Patented CryoGuard™ thermal shield reducing thermal stress for extended life
- α Vertical mounting
- α PED Compliance and CE marking for the European Community
- α CRN Registration for installation in Canada

### Standard Features

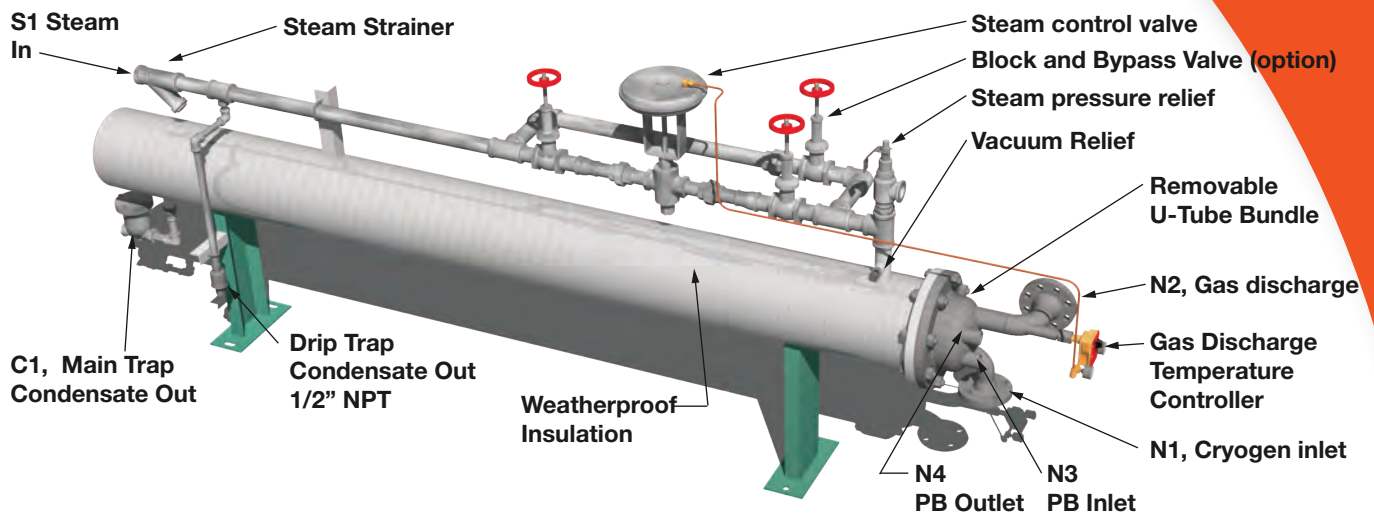
- α Thermax proven Vortex Flow action
- α Stainless steel removable tube bundle
- α Carbon steel Shell
- α Steam control valve
- α Pneumatic temperature controller
- α Steam strainer
- α Steam line drip trap
- α Oversize thermostatic main condensate trap
- α Shell Pressure Relief and Vacuum Breaker Valves
- α Weatherproof shell insulation



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## General Arrangement

Model	Nominal Dimensions, Inches			Nozzle Connection, Inches				Optional Pressure Build Coil		Weight
	Length	Width	Height	Inlet N1	Outlet N2	Steam S1	Cond. C1	PB In N3	PB Out N4	
T10S	90	10	48	1/2	3/4	1/2	1/2	1/2	1/2	250
T25S	90	11	50	1/2	1	3/4	1	1/2	3/4	400
T50S	90	11	50	1/2	1	3/4	1 1/4	1/2	3/4	600
T100S	94	15	54	1 1/2	2	2	1 1/4	3/4	1	700
T150S	94	17	56	1 1/2	2	2	1 1/4	3/4	1	800
T200S	104	20	60	2	2 1/2	2 1/2	1 1/2	1	1 1/2	900
T300S	110	22	66	2 1/2	3	2 1/2	2	1	1 1/2	1,400
T500S	120	24	72	3	4	3	2 1/2	1	2	1,600
T600S	122	26	78	3	4	3	2 1/2	1	2	1,800
T800S	124	28	82	4	6	4	3	1 1/2	2	2,000
T1000S	130	32	90	4	6	4	3	1 1/2	2 1/2	2,500



## Model Rating

Model	SCFH in Thousands					Pounds Per Hour		
	N <sub>2</sub>	O <sub>2</sub> /CO	Ar	H <sub>2</sub>	LNG	ETHYLENE PROPANE	NH <sub>3</sub>	Cl <sub>2</sub> /CO <sub>2</sub>
T10S	12	10	13.2	20	10	530	150	960
T25S	30	25	33	50	25	1,325	375	2,400
T50S	60	50	66	100	50	2,650	750	4,800
T100S	120	100	132	200	100	5,300	1,500	9,600
T150S	180	150	198	300	150	7,950	2,250	14,400
T200S	240	200	260	410	200	10,600	3,000	19,200
T300S	360	300	400	600	300	15,900	4,500	28,800
T500S	600	500	550	1,000	500	26,500	7,500	48,000
T600S	720	600	800	1,200	600	31,800	9,000	57,600
T800S	960	800	1,050	1,600	800	42,400	12,000	76,800
T1000S	1,200	1,000	1,320	2,000	1,000	53,000	15,000	96,000

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. Vortex-Flow™ is a Thermax Inc. Trademark.