

# HYBRID SUPERGAP™

AMBIENT VAPORIZER



**Thermax Hybrid Supergap™ Ambient Vaporizers** are an advanced high performance design. Hybrid Supergap™ Vaporizers use natural convection of air to vaporize liquefied gases. Finned aluminum tubes absorb heat from the air and transfer that heat to the product gas. The huge 4 inch gap between fin tips provides room for ice growth.

A combination of Thermax Hi Flux Thermafin and Megafin fin tube profiles are used to maximize performance and minimize approach temperatures for medium duration run times between defrosts. Extended operation requires a system of switching vaporizers designed by Thermax. In addition to our standard aluminum construction, units are available with stainless steel and other alloy liners for high pressure and corrosive applications.

## STANDARD FEATURES

- 12 inch fin tube center to center spacing
- 4 inch gap between fins
- Standard models rated up to 300 MSCFH
- Aluminum corrosion resistant construction
- High strength welded base frame
- Withstands 100 mph winds and Zone 4 seismic forces
- 600 psig standard design pressure on all aluminum units
- Severe thermal cycling design
- Enhanced internal Multi fin heat transfer area, highest in industry
- No-crate shipping design for larger models
- Perimeter frame and legs for unrestricted airflow
- ASME B31.3, CRN (all provinces), and PED module D compliant

## OPTIONS

- Stainless Steel, Monel and other alloy liners
- Design pressures exceeding 15,000 psig
- High wind, Force 12 design for 150 MPH wind loads per ASCE 7-05
- Low inlet pressure and low pressure drop designs
- Flanged, tongue and groove, butt weld end connections
- Tank, wall, or truck mounting
- Continuous operation with switching system
- Electropolished 316LSS internals for ultra-pure applications

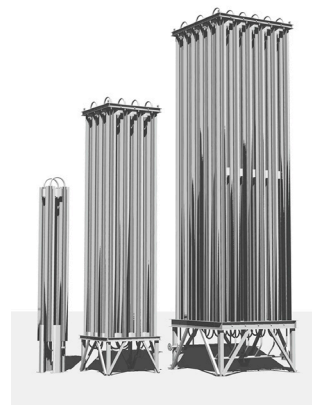


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## AMBIENT VAPORIZER

### TYPICAL SPECIFICATIONS

- Thermax Ambient Vaporizer, Model SG\_\_\_\_\_HF
- MOC: Aluminum extrusions and frame
- Construction: Welded base frame, internal and external finned extrusions, designed per ANSI B31.3 and meets UBC, Chapter 23, 100 mph winds and Seismic Zone 4
- End connections: \_\_\_\_\_ inch NPT (standard, flanges and others available)
- Extrusion spacing: 4 inches
- Design Flow Rate (8 hrs):\_\_\_\_\_SCFH
- Design Pressure Drop: 20 psi at 150-psig inlet (standard)
- Design Pressure: 600 psig
- Design Outlet Temperature: 20°F approach to ambient (standard)



Standard Connection Type	Design Pressure	
MNPT (Male pipe threads)	600 PSIG	41 BARG
*ANSI Class 150 >/=3" F.F. Flange	180 PSIG	12 BARG
ANSI Class 150 <3" F.F. Flange	275 PSIG	19 BARG
ANSI Class 300 F.F. Flange	450 PSIG	31 BARG
Mueller Flange (solder O.D.)	450 PSIG	31 BARG

For lined units, substitute HF in model number with:  
 SS-4.0 (stainless, design pressure = 4,000 psig/ 275 barg)  
 SS-6.0 (stainless, design pressure = 6,000 psig/ 414 barg)  
 SS-EP (stainless, electropolish finish)  
 M-3.0 (monel, design pressure = 3,000 psig/ 206 barg)

Standard Supergap™ Model/ Rating Table and Dimensions										
Model Number	Flow Rate* 8 Hours, Nitrogen				Standard Inlet/Outlet Connection Size		Approximate Overall Dimensions W x D x H		Approximate Dry Weight	
	Aluminum		SS Lined		inches	cm	inches	cm	Lbs	Kg
	SCFH	Nm <sup>3</sup> /Hr	SCFH	Nm <sup>3</sup> /Hr						
HBSG28HF	2,832	75	2,124	56	3/4	19	22X22X152	56x56x386	248	112
HBSG35HF	3,540	93	2,655	70	3/4	19	32X22X152	81x56x386	344	157
HBSG50HF	5,310	140	3,983	105	3/4	19	44X22X152	112x56x386	440	200
HBSG70HF	7,080	186	5,310	140	3/4	19	48X36X152	122x91x386	648	293
HBSG100HF	10,620	279	7,965	209	3/4	19	48X48X152	122x122x386	824	374
HBSG140HF	14,160	373	10,620	280	3/4	19	48X48x153	122x91x541	928	421
HBSG150HF	15,930	419	11,948	314	3/4	19	48X36x213	122x122x541	1,216	552
HBSG200HF	21,240	559	15,930	419	3/4	19	48X60X213	122x152x541	1,496	678
HBSG260HF	26,550	699	19,913	524	1-1/2	38	72X48X224	182x122x569	1,856	842
HBSG310HF	31,860	839	23,895	629	1-1/2	38	60X72X224	152x182x569	2,280	1,034
HBSG400HF	39,825	1,048	29,869	786	1-1/2	38	73X73X224	185x185x224	2,704	1,227
HBSG470HF	47,790	1,258	35,843	944	1-1/2	38	75X62X284	191x157x721	3,024	1,371
HBSG530HF	53,100	1,397	39,825	1,048	1-1/2	38	75X72X284	191x182x721	3,592	1,629
HBSG630HF	63,720	1,677	47,790	1,258	1-1/2	38	75X93X284	191x236x721	4,144	1,880
HBSG740HF	74,340	1,956	55,755	1,467	2	51	75X98X284	191x249x721	4,720	2,141
HBSG840HF	84,960	2,236	63,720	1,677	2	51	98X86X284	249x218x721	5,456	2,475
HBSG990HF	99,120	2,608	74,340	1,956	2	51	98X98X284	249x249x721	6,200	2,813
HBSG1000HF	113,280	2,981	84,960	2,236	2	51	98X110X284	249x279x721	6,944	3,147
*HBSG1200HF	127,440	3,354	95,580	2,516	3	76	101X101X414	256x256x1051	9,848	4,467
*HBSG1600HF	169,120	4,472	126,840	3,354	3	76	101X114X414	256x290x1052	10,992	4,986
*HBSG1900HF	191,160	5,031	143,370	3,773	4	102	101X101X534	256x256x1356	12,952	5,875
*HBSG2200HF	226,560	5,962	169,920	4,472	4	102	101X114X534	256x290x1356	14,512	6,582
*HBSG2400HF	254,880	6,707	191,160	5,030	4	102	101X114X534	256x290x1478	9,785	4,438
*HBSGE3000HF	315,000	8,300	236,250	6,225	4	102	98X115X534	249x292x1478	11,300	5,126

For nominal flow rate O2 - multiply by 0.92, Ar - multiply by 1.14

Shaded models are designated QUICK SHIP MODELS, 1 to 4 weeks lead time.

\* Nominal flow rate is based on 8 hours continuous service between defrosts, an ambient temperature of 50°F, relative humidity of 50%, and a 20°F Approach temperature. Please consult your Thermax Inc. sales person for ratings for other conditions.

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Product Datasheet 3.5.1



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