

# HYBRID SUPERGAP™

AMBIENT VAPORIZER



Product Datasheet **3.5.1**



## 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

## 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.

## 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



Innovation. Experience. Performance.®

# HYBRID SUPERGAP™

## AMBIENT VAPORIZER

### Typical Specification:

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)



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 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

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 O<sub>2</sub> - 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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