

THERMAFIN™ SUPERGAP™

PREMIUM NATURAL CONVECTION FIN AMBIENT VAPORIZER



Product Datasheet **3.5**



Thermax Thermafin™ Supergap™ Ambient Vaporizers

have become the industry standard for ambient air vaporization. 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 and allows for more than 500 hours of continuous operation without defrost, making Supergap vaporizers ideal for severe climates and long duration operation. 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 200 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 16 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
- Patent pending, internal flow balancing design
- Taperfin gives 99% fin efficiency

Options

- Stainless steel, monel and other alloy liners
- Design pressures exceeding 15,000 psig
- Gale Force™ 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.®

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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)

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)

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		Dimensions W x D x H		Weight	
	Aluminum		SS Lined		inches	mm	inches	cm	Lbs	Kg
	SCFH	Nm ³ /Hr	SCFH	Nm ³ /Hr						
SG5HF	500	14	400	12	3/4	19	11X22X60	28x56x152	50	23
SG10HF	1,000	28	800	24	3/4	19	11X22X132	28x56x335	70	32
SG20HF	2,000	56	1,600	48	3/4	19	22X22X132	56x56x335	110	50
SG25HF	2,600	70	2,100	60	3/4	19	22X22X152	56x56x386	155	70
SG35HF	3,900	100	3,100	80	3/4	19	32X22X152	81x56x386	215	98
SG50HF	5,200	140	4,200	110	3/4	19	44X22X152	112x56x386	275	125
SG70HF	7,800	210	6,200	160	3/4	19	48X36X152	122x91x386	405	183
SG95HF	10,400	273	8,300	218	3/4	19	48X48X152	122x122x386	515	234
SG110HF	11,700	310	9,400	250	3/4	19	48X36X213	122x91x541	580	263
SG140HF	15,600	410	12,500	330	3/4	19	48X48X213	122x122x541	760	345
SG180HF	19,400	500	15,500	400	3/4	19	48X60X213	122x152x541	935	424
SG215HF	23,300	610	18,600	490	1-1/2	38	72X48X224	182x122x569	1,160	526
SG270HF	29,200	770	23,400	620	1-1/2	38	60X72X224	152x182x569	1,425	646
SG320HF	35,000	900	28,000	700	1-1/2	38	73X73X224	185x185x224	1,690	767
SG360HF	38,900	1,000	31,100	800	1-1/2	38	75X62X284	191x157x721	1,890	857
SG430HF	46,700	1,200	37,400	1,000	1-1/2	38	75X72X284	191x182x721	2,245	1,018
SG500HF	54,400	1,400	43,500	1,100	1-1/2	38	75X93X284	191x236x721	2,590	1,175
SG580HF	62,200	1,600	49,800	1,300	2	51	75X98X284	191x249x721	2,950	1,338
SG670HF	72,600	1,900	58,100	1,500	2	51	98X86X284	249x218x721	3,410	1,547
SG770HF	82,900	2,200	68,300	1,800	2	51	98X98X284	249x249x721	3,875	1,758
SG860HF	93,300	2,500	74,600	2,000	2	51	98X110X284	249x279x721	4,340	1,967
±SG1150HF	124,400	3,300	99,500	2,600	3	76	101X101X414	256x256x1051	6,155	2,792
±SG1300HF	140,400	3,700	112,000	2,900	3	76	101X114X414	256x290x1052	6,870	3,116
±SG1500HF	165,900	4,400	132,700	3,500	4	102	101X101X534	256x256x1356	8,095	3,672
±SG1700HF	186,600	4,900	149,300	3,900	4	102	101X114X534	256x290x1356	9,070	4,114

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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