**Supergap™ Performance**

Thermax Supergap™ Ambient Cryogenic Vaporizers have become the industry standard design. Supergap™ Modules use a big 5” gap between finned elements to resist frost clog longer, extending economic use to the two-week continuous range as stand-alone modules. When the duty cycle extends beyond the two-week range, switching systems and Hybrid Arrays are employed. Modules are available to over 150,000 SCFH in all-aluminum, stainless-steel lined (high pressure) and electropolished stainless steel designs. In addition to the 5” fin gap, Thermax Supergap™ Modules are fully engineered and tested to withstand the demanding thermal cycling and ice loads generated on Ambient Vaporizers in long-term use.

**Supergap™ Specifications**

Thermax Supergap™ Modules meet the most demanding set of specifications established by the Cryogenic Industrial Gas Industry:

- Severe thermal cycling per ANSI B31.3 -- This type of service is common at most bulk-use customer stations where gas flows vary widely.
- Wind load design to 100 MPH per 1997 UBC -- High wind loads are very common in all USA locations and must be incorporated into the modules’ design.
- Seismic/earthquake design per 1997 UBC -- This requirement is now mandatory in some states and an integral part of most specifications.
- Ice load allowance based on Thermax’s own “22,000 STD” including eccentric force loadings due to uneven frost buildup.
- Crateless design standard on larger modules -- Not only does this design reduce setup time at the site, but assures the customer of reduced shipping damage and simpler relocation at lower cost.
- Stress-free base designs featuring Thermax Thermafin Cores on larger modules assures you that standard weld surface cracks due to thermal expansion/contraction are eliminated in normal use.
- Thermax high-flow, high-thermal flux internal fin design with more internal fin surface area and generous cross section allows closer approach temperatures in the super-heat zone at very low pressure drops.
- Full penetration weld design in critical pressure joints, for long service at zero leakage.
Thermax Supergap™ Thermatomic Ambient Modules are available in all-aluminum, stainless steel or non-ferrous lines units to 15,000 psig (1,024 Bar).

### Custom HF:
To 600 psig (41 Bar) MAWP/750 psig (52 Bar) Test

### SS Lined Series:
300 Series SS Lined to 15,000 psig (1,024 Bar)

### SS-LP:
Bulk Service SS to 700 psig (48 Bar)

### SS 3.5:
3500 psig (241 Bar)

### SS 4.5:
4500 psig (310 Bar)

### SS 6.0:
6000 psig (414 Bar)

### SS-EP:
Electropolished – Any pressure

### Monel Lined Series:
M30 to 3000 psig (207 Bar)

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### Standard Supergap™ Modules / Rating Table and Dimensions

#### 450 psig (31 Bar) Design

<table>
<thead>
<tr>
<th>Part Number</th>
<th>SCFH / Nm³h</th>
<th>Rating O₂/N₂/Ar</th>
<th>Chart Thermax</th>
<th>Total Draw</th>
<th>Standard/Correction</th>
<th>Shipping</th>
<th>Design</th>
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<td>SCFH / Nm³h</td>
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#### 600 psig (41 Bar) Design

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All tables shown are intended as guides reflecting our experience on these models. Actual performance may vary. 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. Thermatomic Supergap™ is a Thermatomic trademark.

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