Superthal™ HT
High-temperature heating modules

**Up to 1675°C (3050°F) furnace temperature**
Superthal™ standard heating modules – half-cylinders and muffles – are designed for an element temperature of up to 1600°C (2910°F).

By using a newly developed special Kanthal® Super molybdenum disilicide (MoSi₂) heating element material, the maximum temperature is now increased to 1725°C (3140°F) for Superthal HT half-cylinder type, enabling up to 1675°C (3050°F) furnace temperature.

Superthal HT heating modules can be operated vertically and are available in standard sizes or as specially designed heating packages with heating modules, back insulation and stainless steel casing.

On request, Sandvik can assist in calculating and manufacturing complete heating packages.

**Applications**
Vertical tube furnaces for a furnace temperature of up to 1650–1675°C (3000–3050°F).

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**SPECIAL FEATURES**
- Reduced energy consumption
- Precise temperature control
- Uniform temperature distribution
- Rapid cycling
Technical information

Specifications
The extra high temperature is achieved by using a new Kanthal® Super type of element material, combined with special supporting hooks and high grade ceramic fiber. The electric contacts are attached on the module and ready to be connected.

Vertical use only.

Properties

<table>
<thead>
<tr>
<th>Type</th>
<th>Inner diameter* (mm)</th>
<th>Outer diameter (in)</th>
<th>Resistance (Ω)</th>
<th>Voltage (V)</th>
<th>Power (W)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Superthal™ SHC100 HT</td>
<td>55</td>
<td>2.2</td>
<td>300</td>
<td>300</td>
<td>11.8</td>
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<tr>
<td>Superthal SHC150 HT</td>
<td>105</td>
<td>4.1</td>
<td>350</td>
<td>350</td>
<td>13.8</td>
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<tr>
<td>Superthal SHC200 HT</td>
<td>155</td>
<td>6.1</td>
<td>400</td>
<td>400</td>
<td>15.7</td>
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<tr>
<td>Superthal SHC250 HT</td>
<td>205</td>
<td>8.1</td>
<td>450</td>
<td>450</td>
<td>17.7</td>
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<tr>
<td>Superthal SHC300 HT</td>
<td>255</td>
<td>10.0</td>
<td>500</td>
<td>500</td>
<td>19.7</td>
</tr>
</tbody>
</table>

Data at element temperature 1700°C (3090°F)
Surface loading 14.2 W/in² (92 W/in²)
Current 90–95 A
Element length 150 mm (5.9 in)
Overall length 200 mm (7.9 in)

Sandvik Group
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Sandvik Materials Technology
Sandvik Materials Technology is a world-leading manufacturer of high value-added products in advanced stainless steels and special alloys, and of medical implants, steel belt-based systems and industrial heating solutions.

Kanthal is a Sandvik owned brand, under which world class heating technology products and solutions are offered. Sandvik, Kanthal and Superthal are trademarks owned by Sandvik Intellectual Property AB.

Recommendations are for guidance only, and the suitability of a material for a specific application can be confirmed only when we know the actual service conditions. Continuous development may necessitate changes in technical data without notice.

This printed matter is only valid for Sandvik material. Other material, covering the same international specifications, does not necessarily comply with the mechanical and corrosion properties presented in this printed matter.