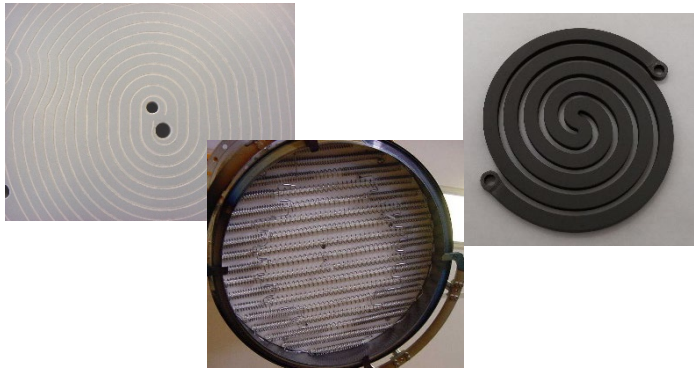


Heaters

- Operating temperatures up to 800°C
- High thermal efficiency
- Top quality materials - contamination free
- Oxygen-resistant version available



Riber substrate heaters are highly thermally efficient. The filament design provides excellent thermal radiation among the substrates.

The filament assembly features a consistent serpentine pattern providing uniform heating to temperatures up to 1000°C.

Production system substrate heaters consist of one or two wire tantalum windings. The winding density varies to provide constant radiation over a very large surface area. The filaments are independently heated and

controlled to optimize temperature adjustment, countering effects of the edge of the substrate holder, and lowering power consumption.

To improve thermal efficiency, tantalum shielding covers the mechanical and the electrical parts so that no damage to material occurs.

Clean operation is achieved by carefully selecting the construction materials. Only tantalum, molybdenum are used in hot zones.

All substrate heaters are designed to minimize induced magnetic fields, for improved RHEED performances.

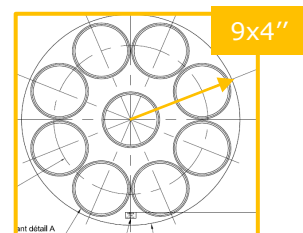
The power supply and PID controller, with feedback loop, are supplied for each filament.

Riber can provide a heater model for both research and production, compatible with oxide environments. Its design has demonstrated excellent performance in reactors with a high base pressure of oxygen.

For more information about the results, please ask for our application notes and detailed system presentations

Type of oven / Compatibility	PSCT 3"	PSCT 4"	PSCT 6"	PSCT D350	PSCT D500
Standard	Ta flat filament, PBN encapsulated 800°C (T/C)	Ta flat filament, PBN encapsulated 800°C (T/C)	Ta spring filament 800°C (T/C)	Ta spring dual filament 800°C (T/C)	Ta spring dual filament 800°C (T/C)
High temperature oven	Consult Riber	Ta flat filament, open design PBN plate 1100°C (T/C)	Consult Riber	Consult Riber	Consult Riber

T°C	9x4"		
	Central wafer	External wafer	Total
700°C	+/- 1,5°C	+/- 3°C	+/- 3°C
600°C	+/- 1°C	+/- 2,5°C	+/- 2,5°C
500°C	+/- 1°C	+/- 3°C	+/- 3°C



Example of temperature uniformity obtained on 9x4" - MBE6000 Standard oven, Si substrates, uniformity rings optimized