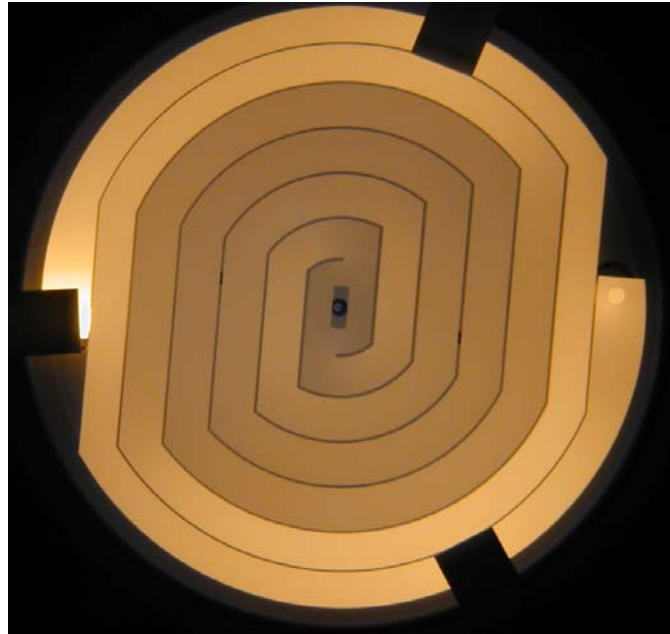


SUBSTRATE HEATERS

Benefits :

- ◆ UHV Design
- ◆ Neutral or reactive atmosphere
- ◆ Many sizes
- ◆ Fit with all substrates



Main specifications :

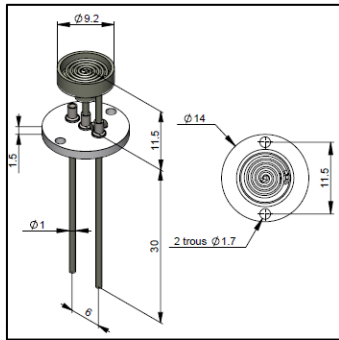
- ◆ Proven design
- ◆ Thermal shielding
- ◆ High temperature
- ◆ Low degassing

Heating elements are crucial components in substrate manipulators. They offer high temperature sources essential for the growth of thin films or for specific analysis. Vinci Technologies / Meca 2000 has developed for years many heaters with specific materials in order to fit the requirements of the researchers in UHV field as high temperatures and very low degassing. Each heating elements is combined with optimized thermal shielding to provide maximum temperature at substrates.

A large range of heating elements can be integrated on customer manipulation system depending on the process and on the nature of the substrates : radiant, direct, electron bombardment heating, UHV or reactive atmosphere...

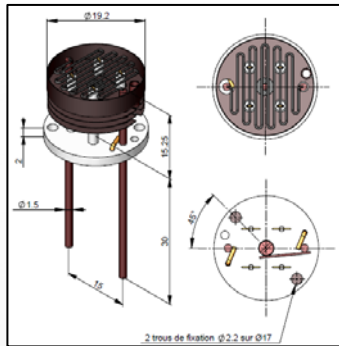
Power supplies added to PID regulation provided by Vinci Technologies / Meca 2000, give to these components a precise control of the temperature.

Classical heaters are presented here but specific solutions can be offered upon request.



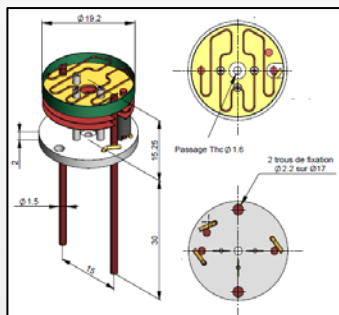
Electron bombardment : 9 mm

The smallest for the highest temperatures. Combined radiant and electron bombardment heating allow to reach more than 1400°C at substrate. Dedicated to small substrates.



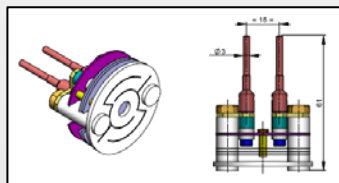
Radiant heating : 1-inch

Classical heater in 1" diameter with a set of thermal shields. Tantalum filament offers 1000°C as maximum temperature at substrate.



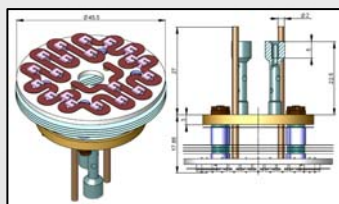
Electron beam & radiant heating : 1-inch

In the same way that the EB 9 mm heater, the electron bombardment 1" heater has the same specifications for larger size of substrates.



PBN radiant heating : 1, 2 and 3-inch

Pg / PBN are used for particular atmosphere as oxygen or ammoniac. For this product, most of the requests are for 1, 2 and 3 inch model but larger can be proposed. Maximum temperature : 900-1000°C



Tantalum radiant heating : 1, 2 and 3-inch

The most standard for your manipulator. Proven design for more than 30 years and mainly for UHV applications like molecular beam epitaxy. A maximum temperature of 1000°C can be obtained in continuous process and 1200°C can be reached for shorter utilization.