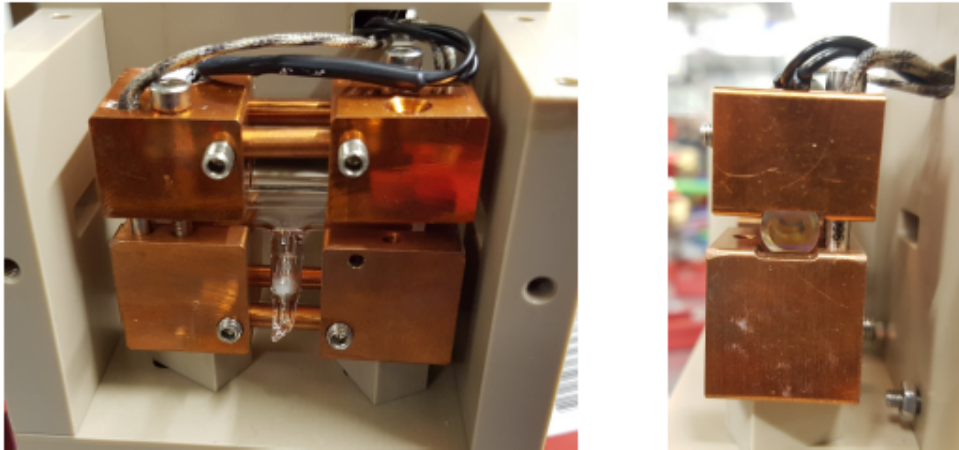


# LAFriOC - Rb cell oven housing design

Emilio Moreno

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## Idea



**Figure 3.6:** *left* Side and *right* frontal view of the vapor cell mounted in its PEEK oven with partially removed covering. For scale consider that the inner diameter of the cell is 5 mm.

Figure 1: Vapor cell copper housing (Gianni Carlo Buser).

## Parts and dimensions

- Rubidium 87 ABS Cell Quartz – TG-ABRB-I87-Q (<https://precisionglassblowing.com/product/rubidium87-abs-cell-quartz-tg-abrb-i87-q/>)
  - Path length: 75mm
  - Outside diameter (OD): 19mm
  - Windows: 2 Degree Wedged Windows Attached at 11 Degree Angle
- Watlow C1A-9600 Cartridge Htr 1/8" x 1" - 24V 20W w/12" Swaged-in Leads (<https://www.ramcoi.com/itemdetail/C1A-9600>)
  - OD: 1/8" (3.175 mm)
  - Length: 1" (25.4 mm)
- TH10K - 10 k $\Omega$  Thermistor (<https://www.thorlabs.com/thorproduct.cfm?partnumber=TH10K>)
- TEC-1091 ( $\pm 4$  A /  $\pm 21$  V) Small OEM Precision Peltier Temperature Controller (<https://www.meerstetter.ch/products/tec-controllers/tec-1091?srsltid=AfmB0opjgkjDoLLM-urALQFYKy8NTFDLkJisR1sXvGEdg6wByYWqAhWI>)



Figure 2: Available screw sizes.