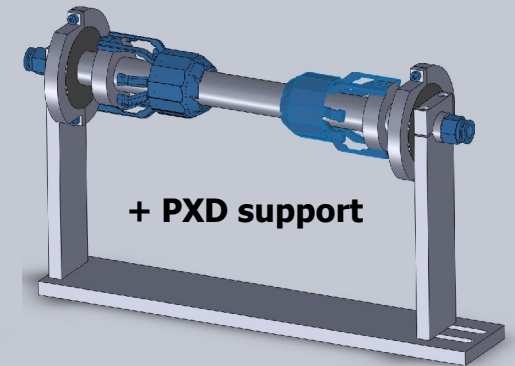
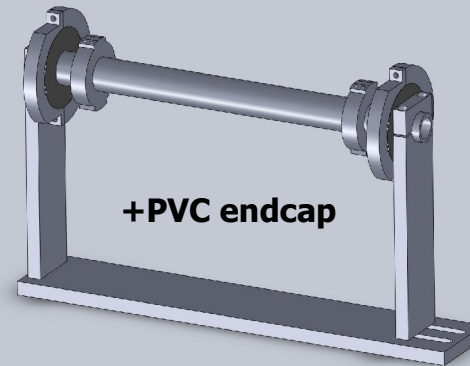
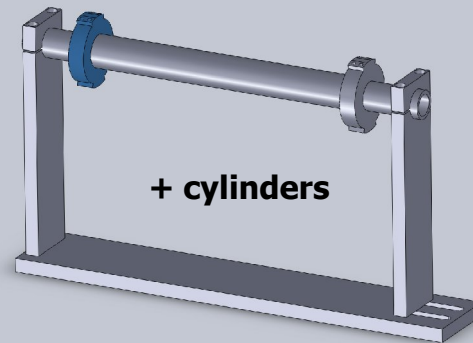
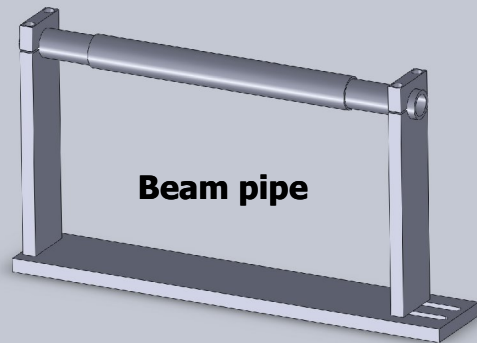
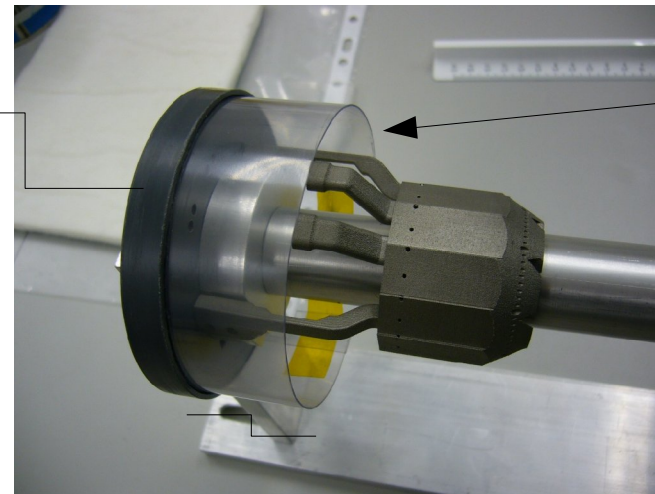
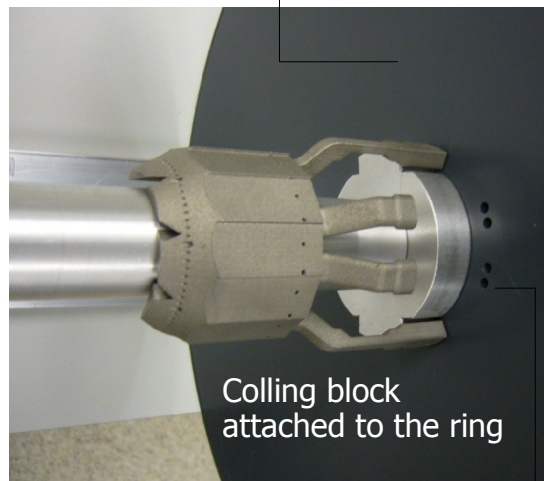


- ✓ This is a “single-purpose” mock-up
- ✓ As such it has its very specific “complements”:
  - Dry Air flow system
  - Open CO<sub>2</sub> cooling system with ~1.5m pipe coil for air cooling (untested)
  - Closed box to control condensation
  - Capacitive position sensors
  - ....

# Thermal mock-up



Two PVC "endcaps" will define the working volume: PXD standalone or PXD+SVD

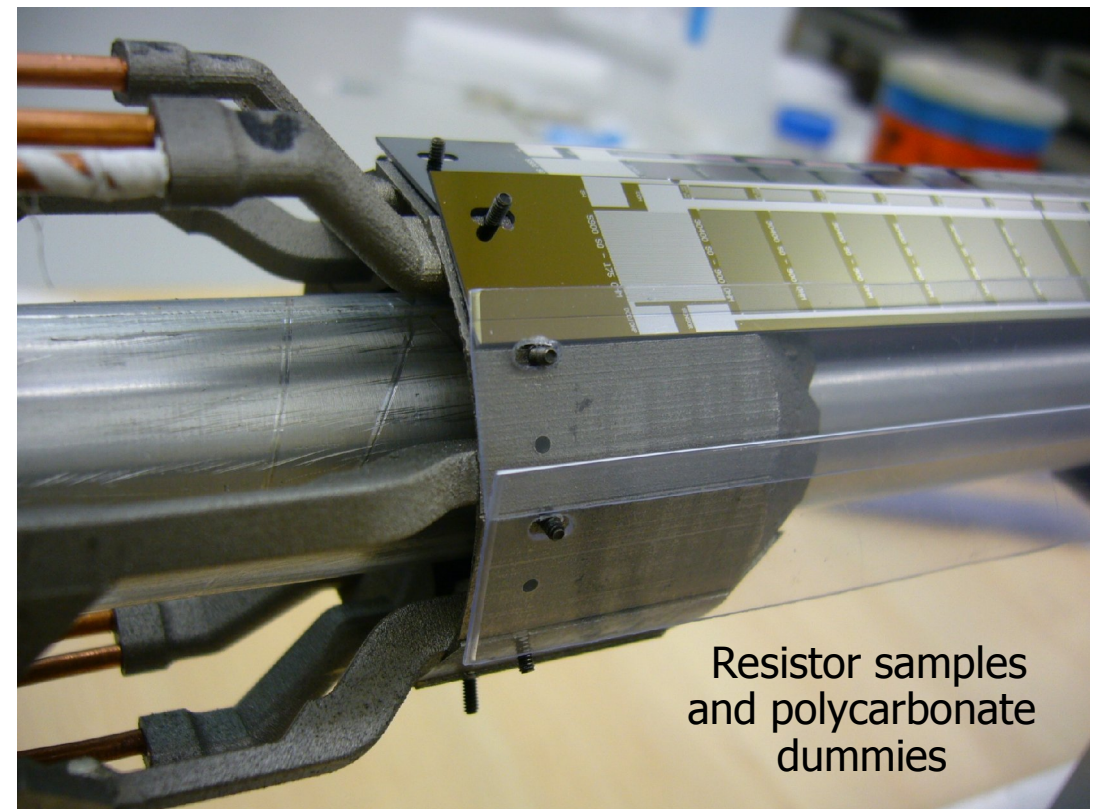
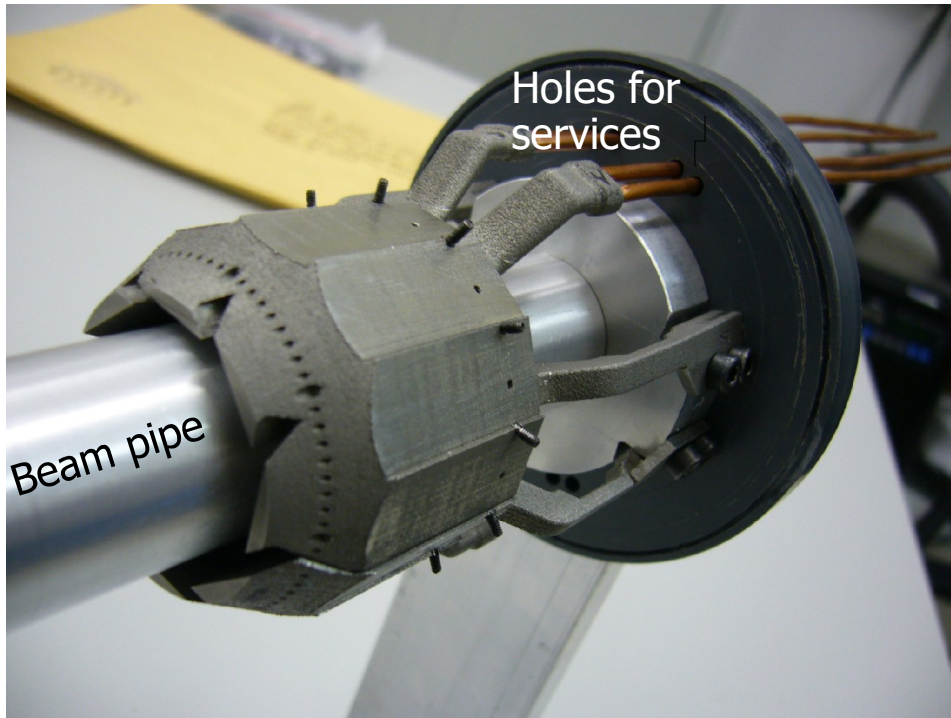


IR transparent PVC to define Volume for air cooling

The polycarbonate screen will be extended to cover the full volume

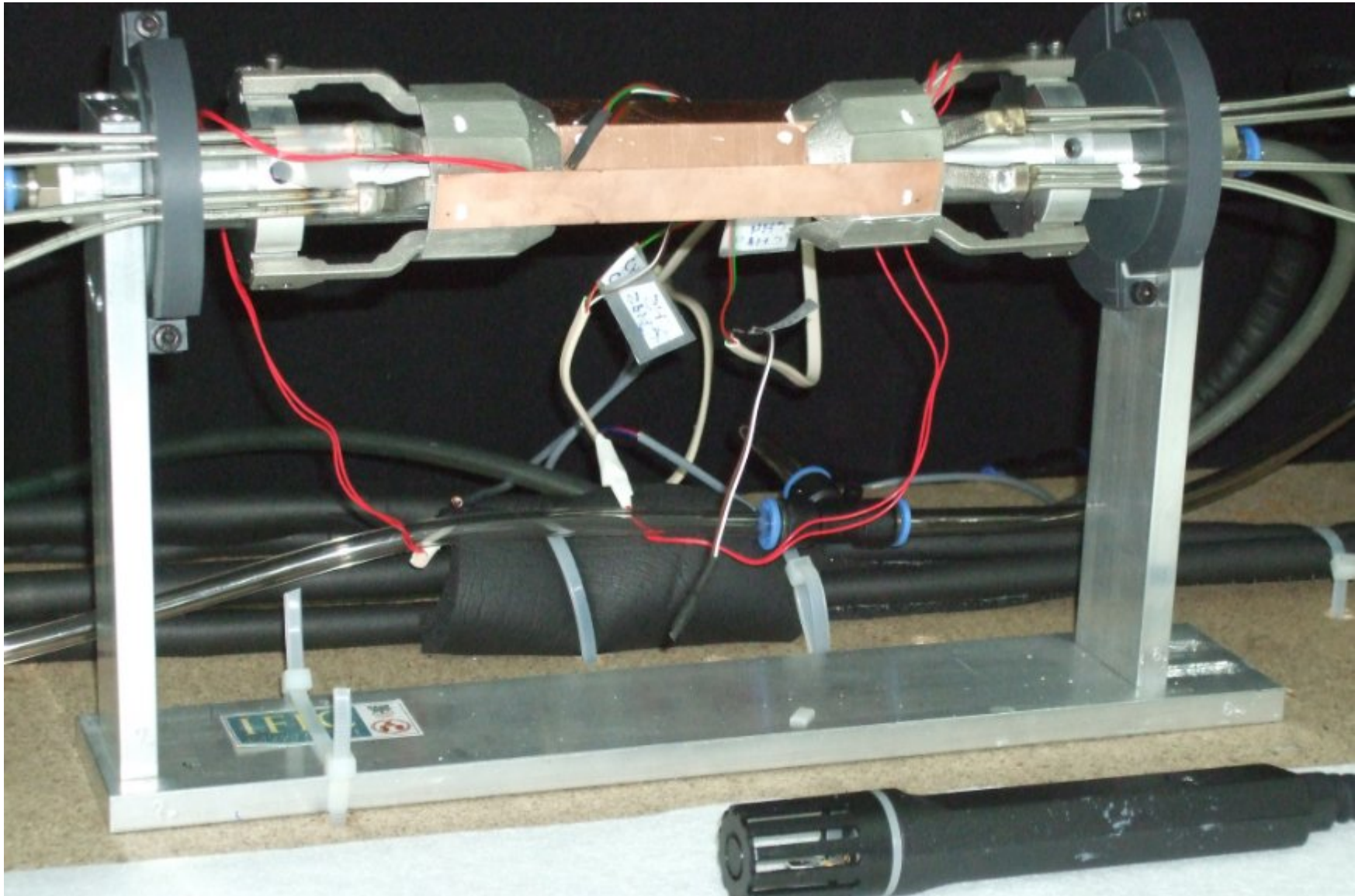
Holes for the services (air and coolant)

# Thermal mock-up



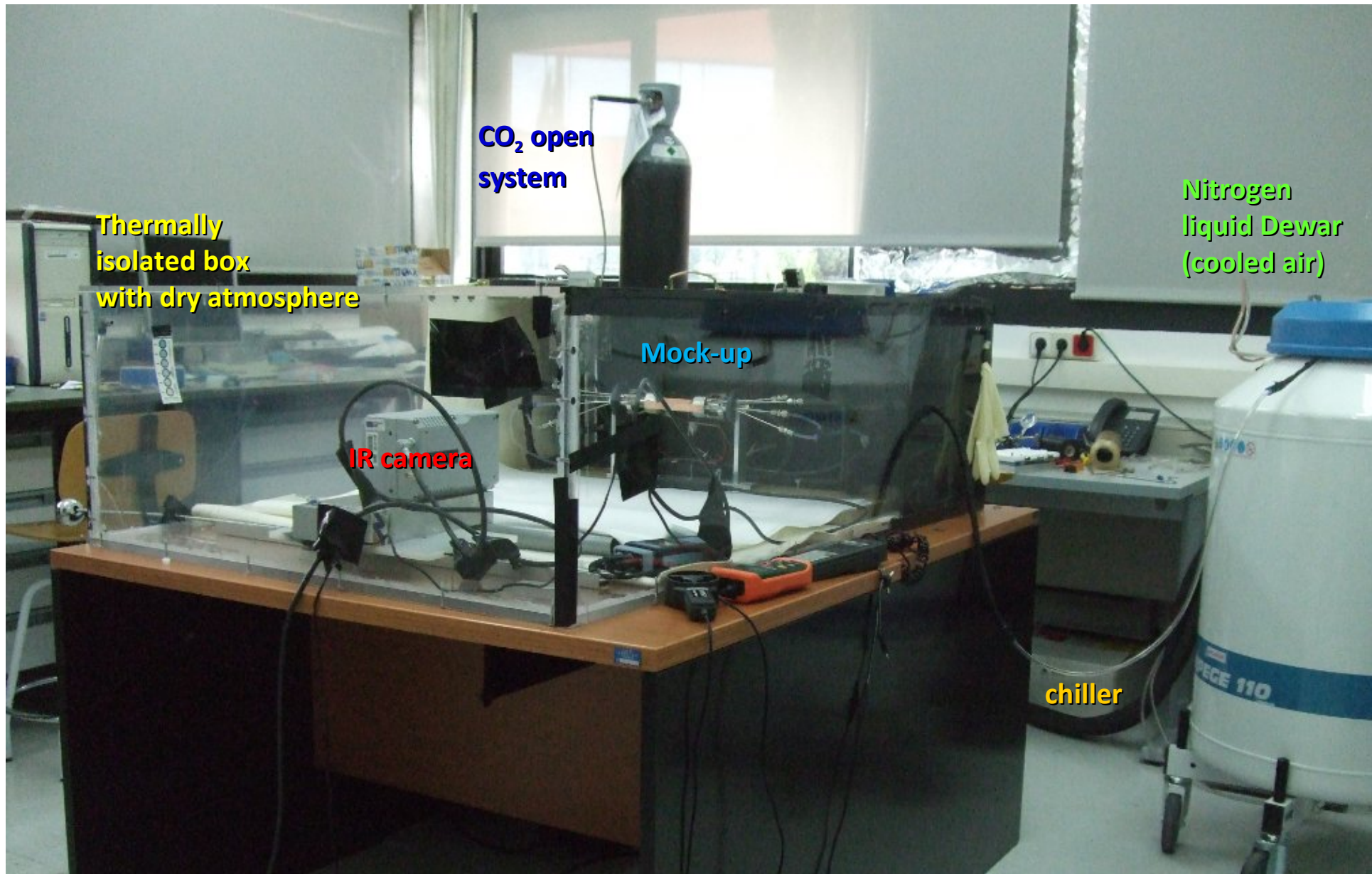


# The mockup



Real silicon dummies kept “save” for the very final measurements

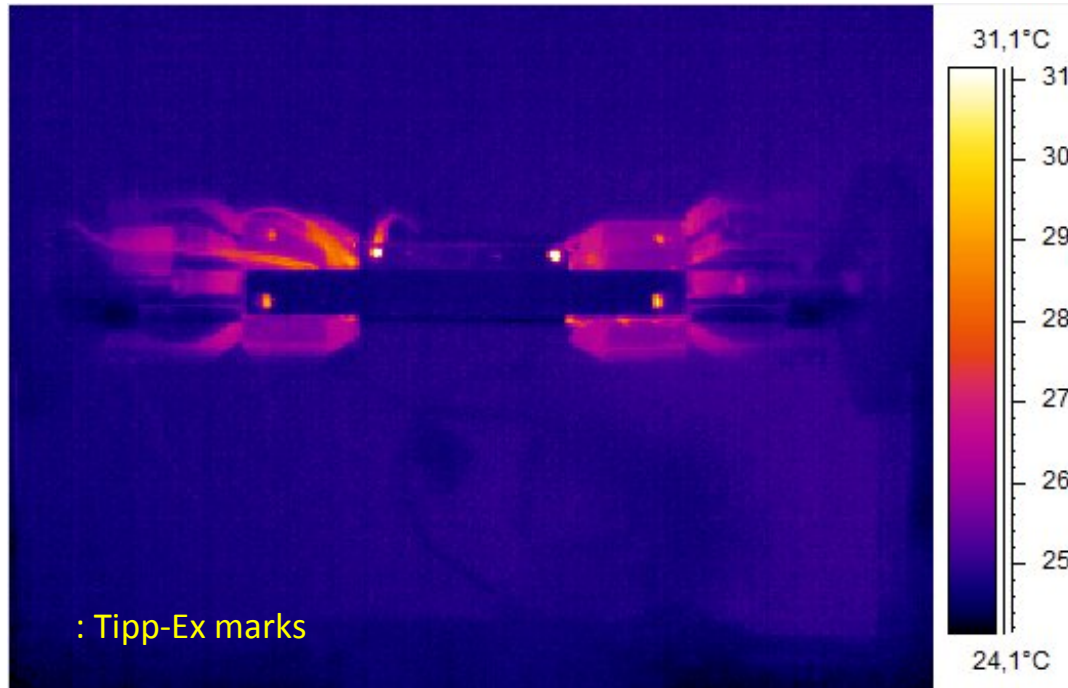
# The whole set-up



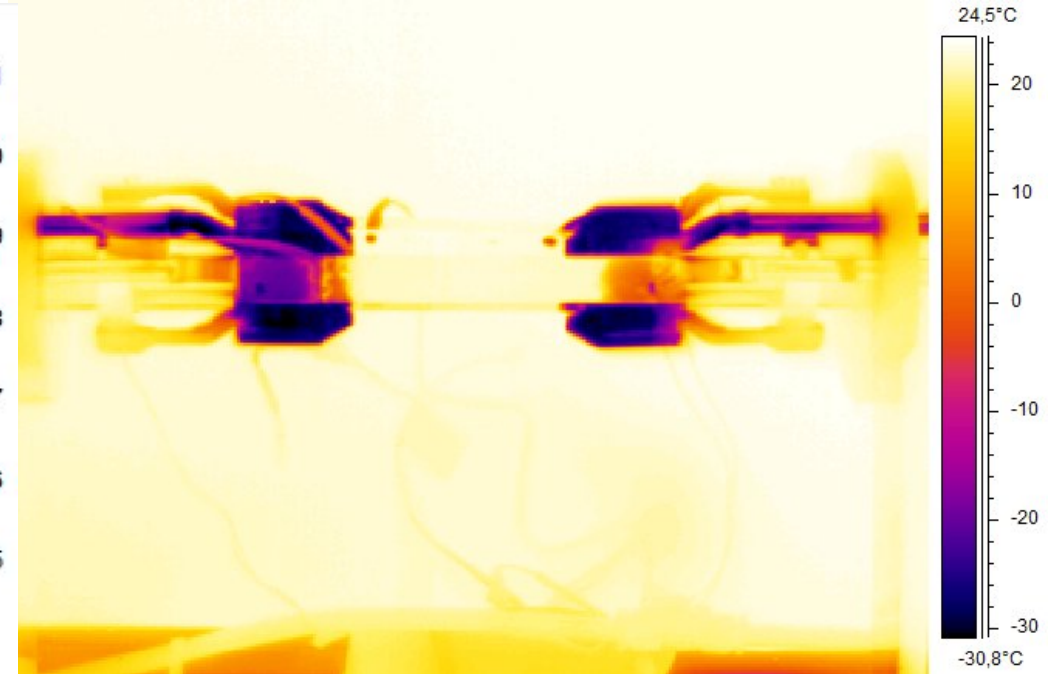


## Copper plates with heaters in pixel area

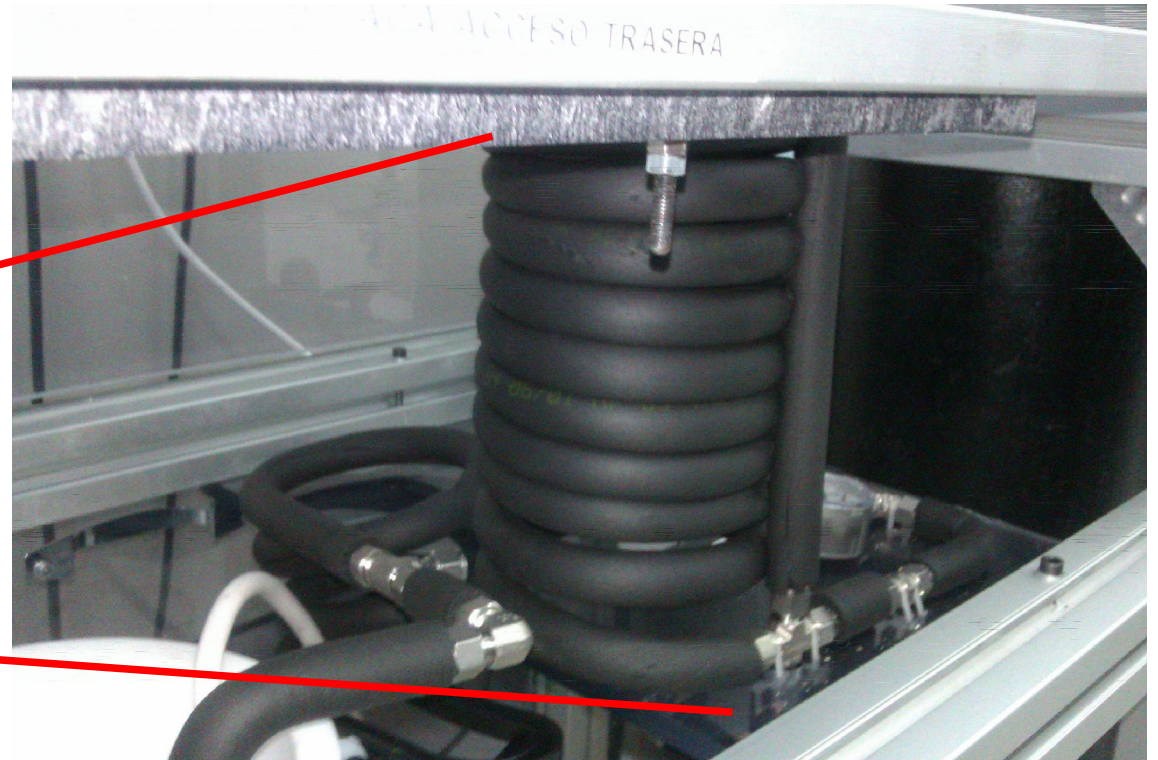
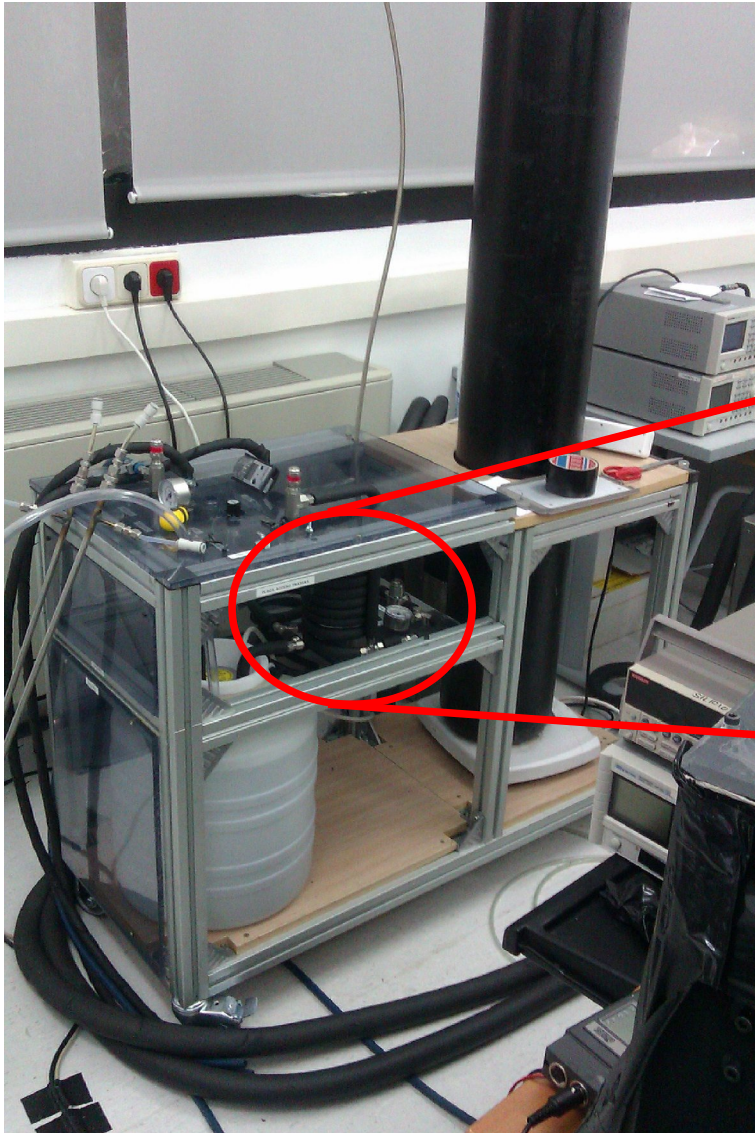
Switching the heaters on



Cooling down the end flanges with CO<sub>2</sub>



# Recent improvements



Pipe coil at the return to cool down the air.  
Capacitive position sensors + DAQ available

- ✓ Ready for PXD alone measurements
- ✓ Need to decide: a) do we add SVD and how and b) decide which tests to make
  - This defines the complexity of the system
- ✓ Drawings are available
- ✓ We have a rather “complete” thermal test set-up.
  - We have to share it with SLHC.
- ✓ Original plan has IFIC sliding away once the tests on PXD-only are finished.
  - However, We could arrange, if needed, to use the setup to do thermal tests in Valencia