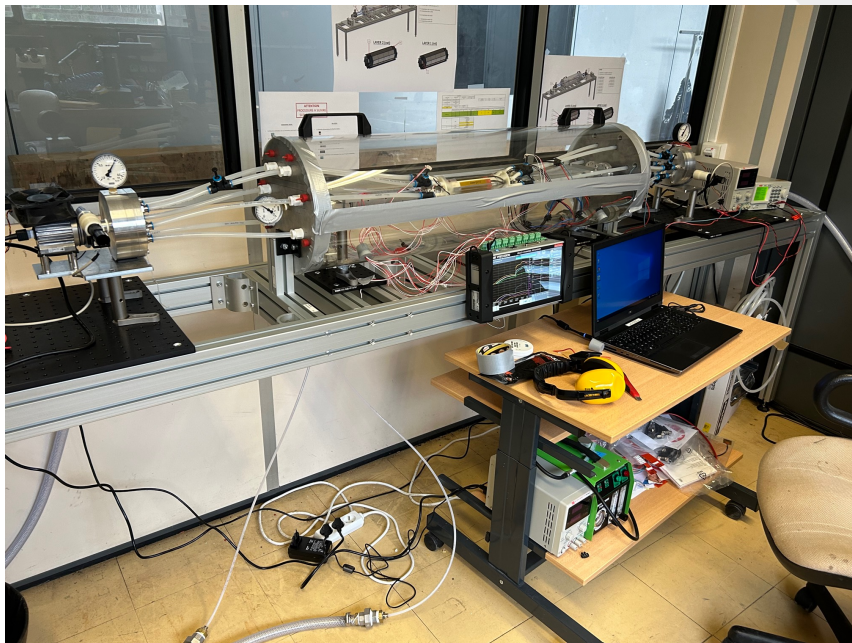


Test on december 11, 2023:

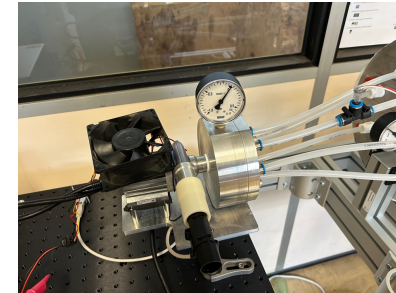
- Improved sealing of test bench
- The air temperature sensors have been brought closer to the iVTX.
- Thermalization of the beam pipe by water circulation.
- Turbine cooling air fan (To limit the heating of the air injected by the heat dissipation of the turbines).



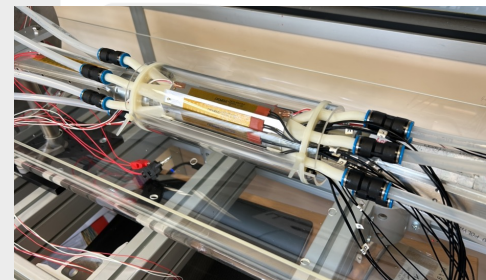
Test bench 04 december 04, 2023



Beam pipe thermalization

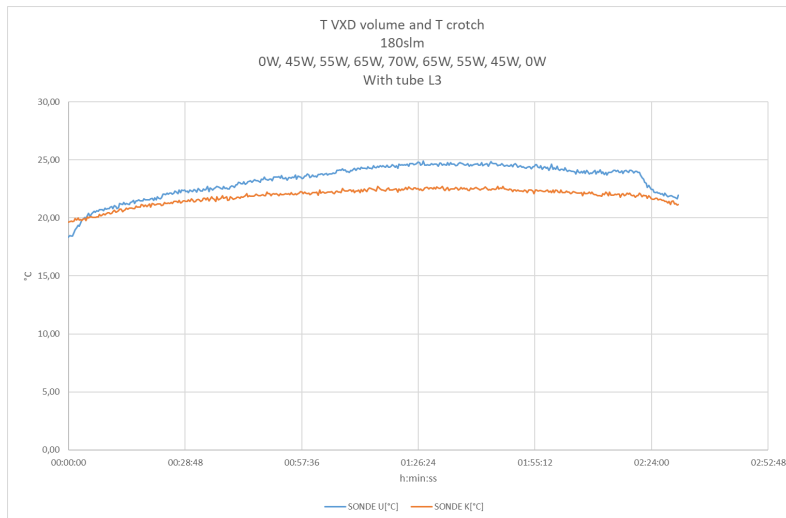


Turbine air fan

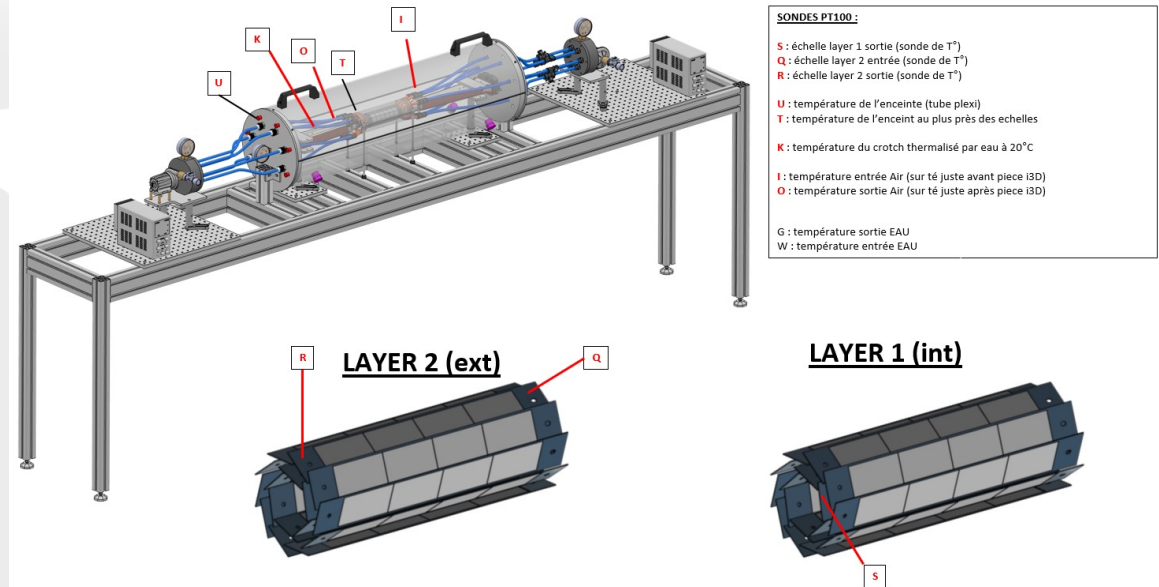


L3 tube around iVTX

Air flow: 180 slm (10m/s).
Power dissipation 0W, 45W, 55W, 65W, 70W, 65W, 55W, 45W and 0W.
Air injection and extraction between layers L1 and L2

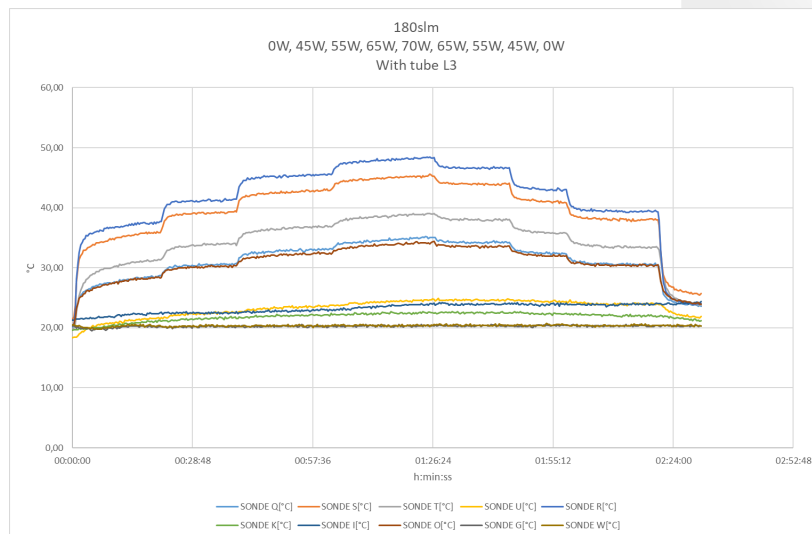


iVTX Environment temperature (Crotch and inside VTX volume) during test, December 06, 2023

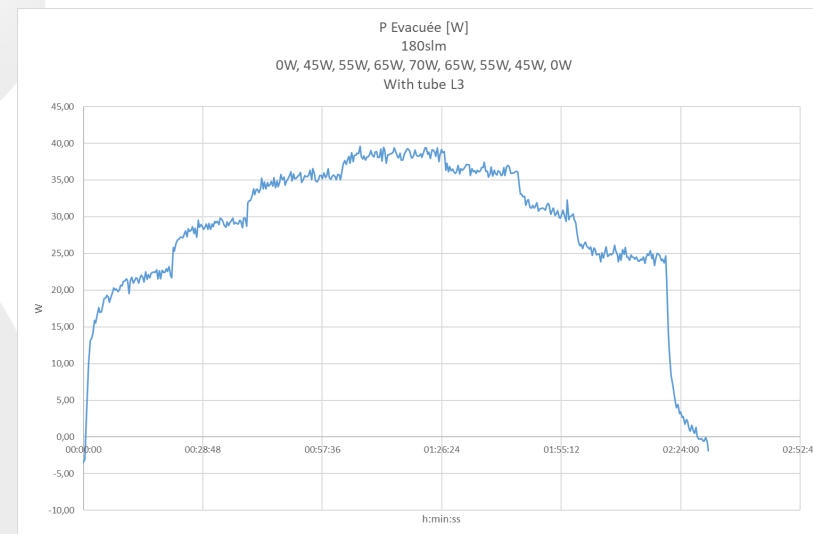


Probes location

Air flow: 180 slm (10m/s), with L3 tube around iVTX.
 Power dissipation (0W, 45W, 55W, 65W, 70W, 65W, 55W, 45W, 0W).
 air injection and extraction between layers L1 and L2



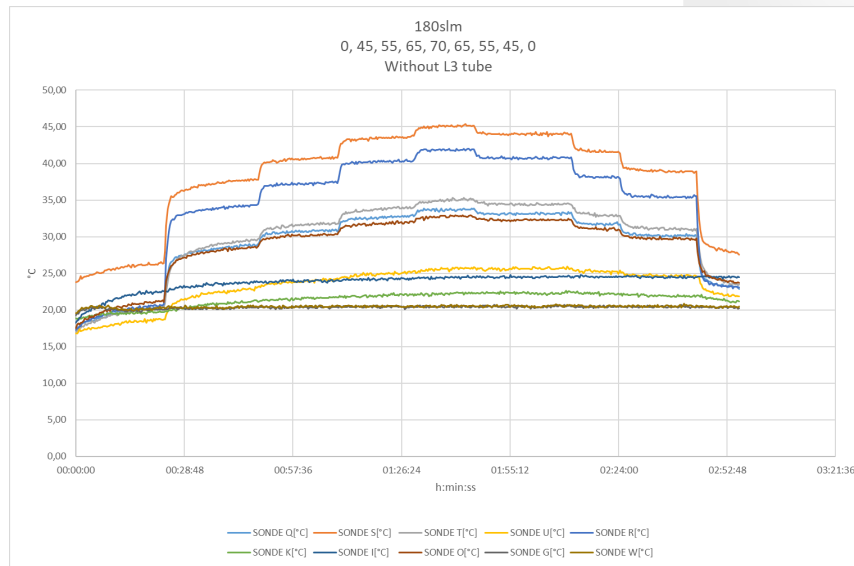
Measures for December 06, 2023



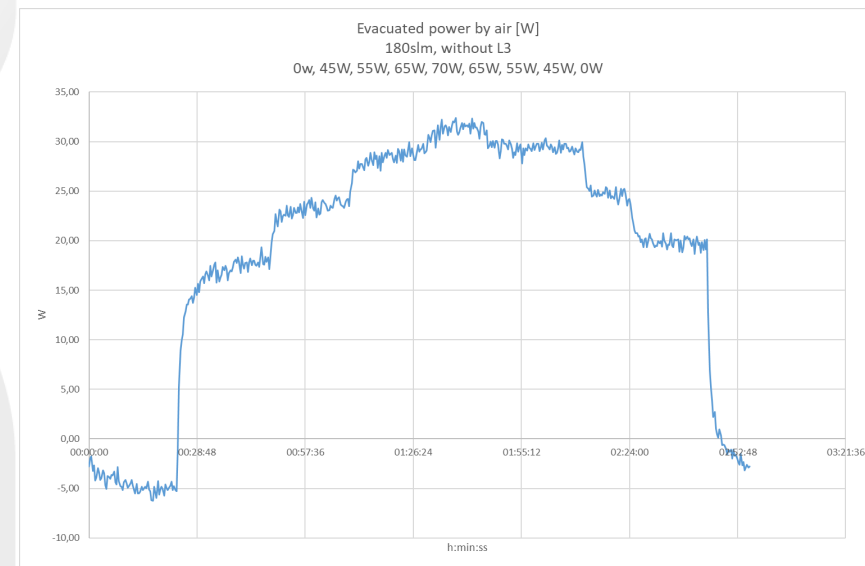
Evacuated power by air

One of the inlet air tube broken

Air flow: 180 slm (10m/s), without L3 tube around iVTX.
 Power dissipation (0W, 45W, 55W, 65W, 70W, 65W, 55W, 45W, 0W).
 air injection and extraction between layers L1 and L2



Measures for Monday, December 08, 2023



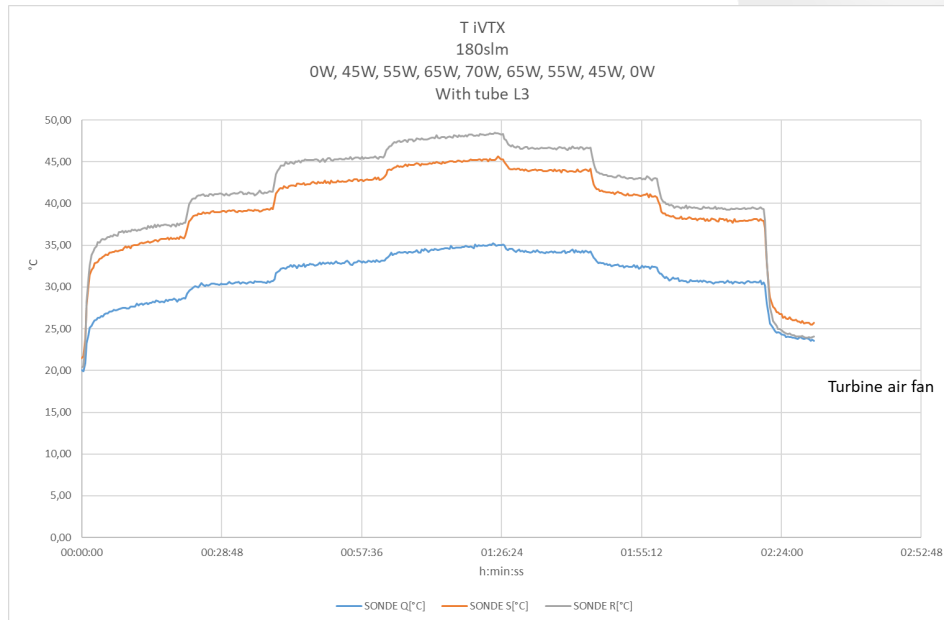
Evacuated power by air

With and without L3 tube

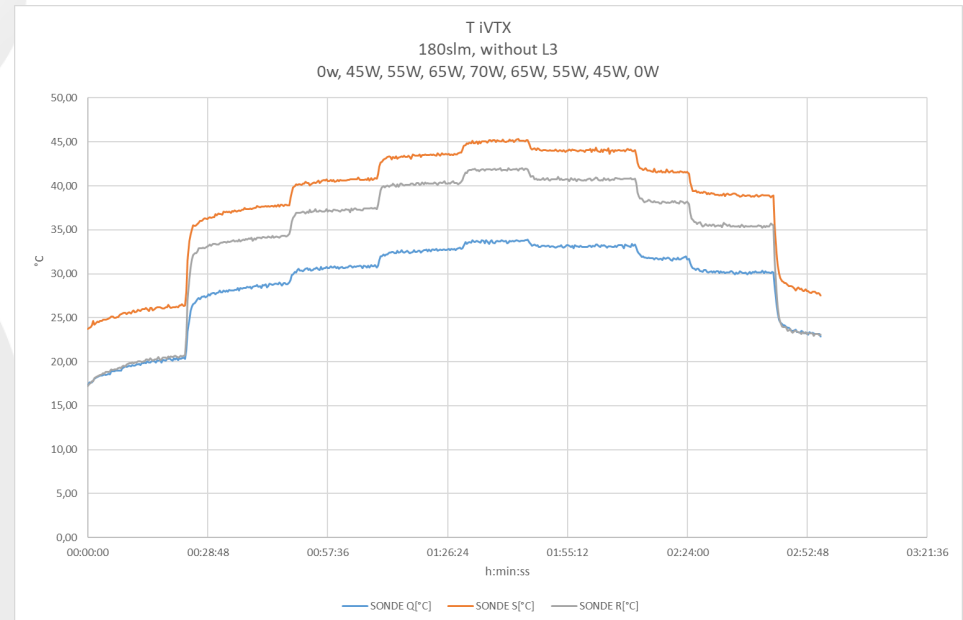
Air flow: 180 slm (10m/s), with L3 tube around iVTX.

Power dissipation (0W, 45W, 55W, 65W, 70W, 65W, 55W, 45W, 0W).

air injection and extraction between layers L1 and L2



IVTX T with L3 tube



IVTX T without L3 tube

With and without L3 tube

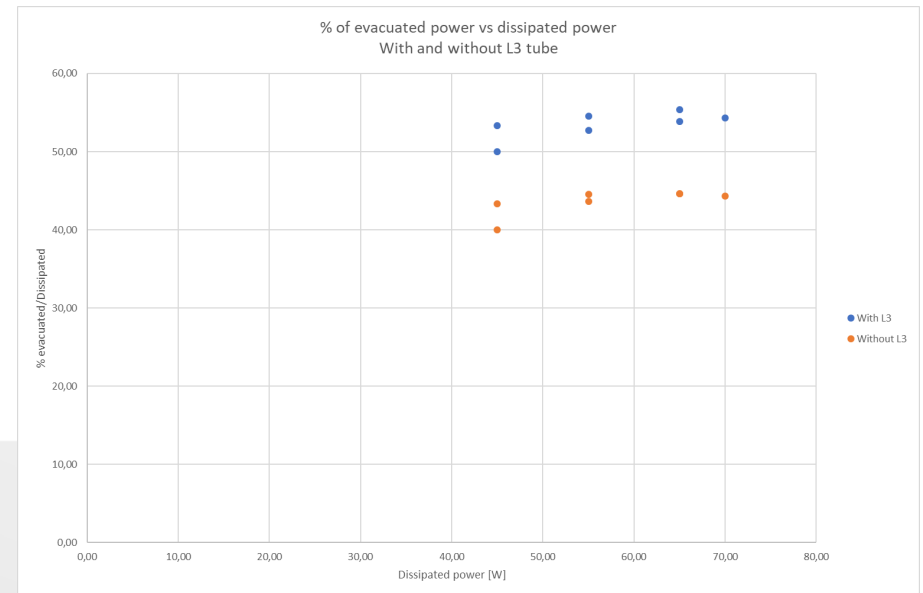
Air flow: 180 slm (10m/s), with L3 tube around iVTX.

Power dissipation (0W, 45W, 55W, 65W, 70W, 65W, 55W, 45W, 0W).

air injection and extraction between layers L1 and L2



Evacuated power vs Dissipated power



% of evacuated power