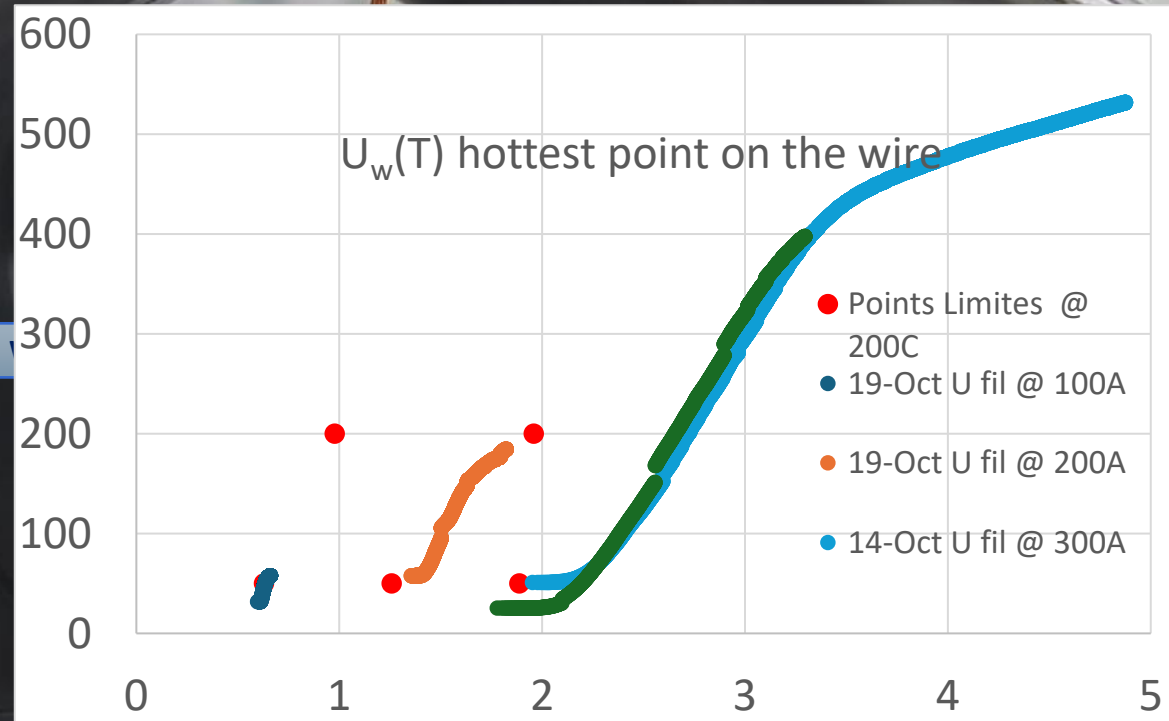
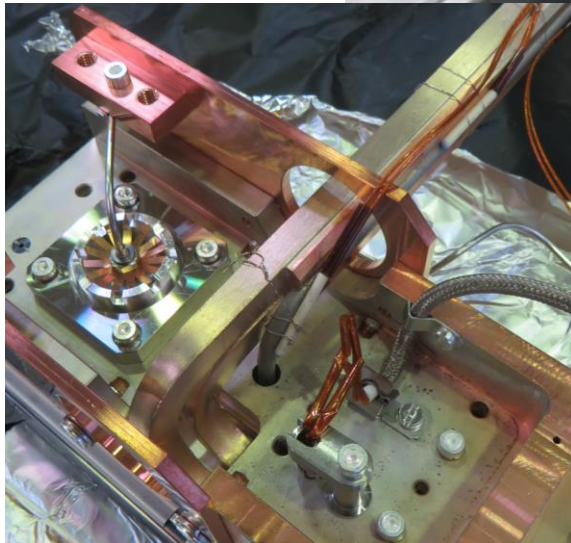


Measurements to establish interlock params

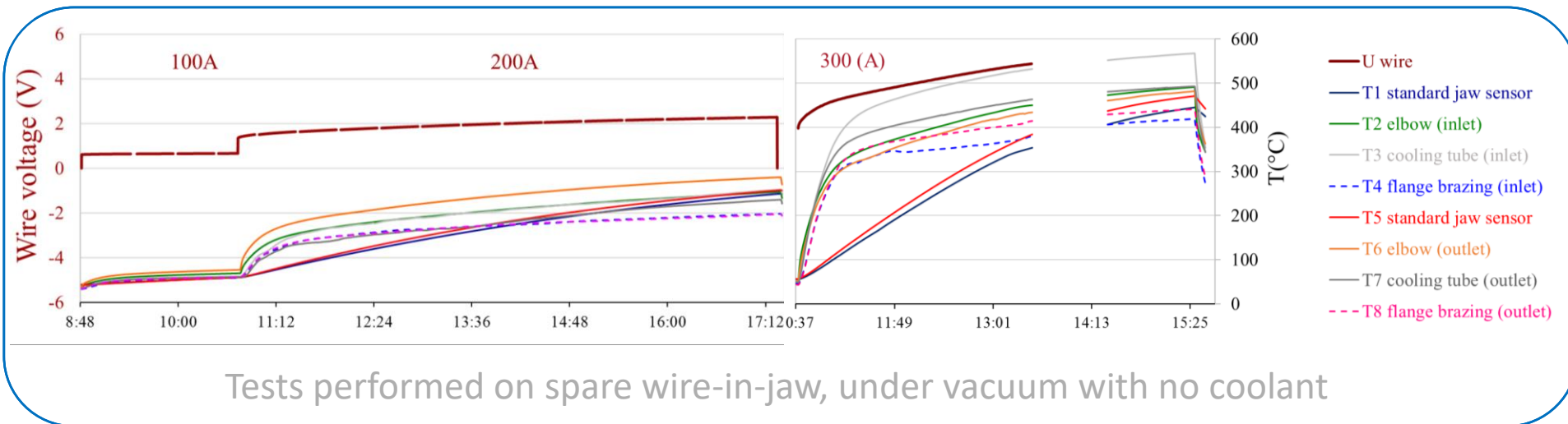
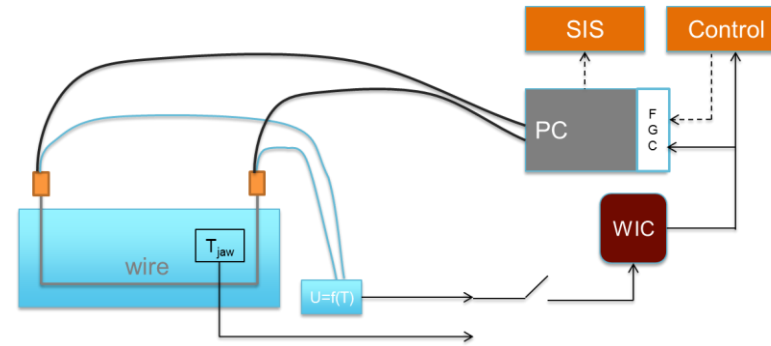
- With cooling, the wire temperature as simulations: stable a few minutes after the current jump. Hottest spot at 120°C @ 350A
- Without cooling, tests at 100 – 200 – 300A:
 $T_w < 200-300^\circ\text{C}$ for $U_w < 2-3\text{V}$.



Prototype jaw used for wire testing and $U_w(T)$ measurements under vacuum

Wire overheating

- Wire resistivity $f(T)$
- If wire voltage $> 2.6V^*$
= if hottest point @ 350A
 $< 200^\circ C$, WIC cuts the PC
- WIC could dump at the same time
- **Long time constant of system, no constraints on collimator HW**



*Note this also correspond to $I_w=375A$