

IVC

UPS Setup: <https://drive.google.com/drive/folders/1a0wyjjzTE5jLHLC99PYc72-o-mntWFn1>

- Slides for UPS with Power distribution: [UPS for IVC.pptx](#)
- Insulation Vacuum Study with Power outages in the past <https://seaquest-docdb.fnal.gov/cgi-bin/sso/ShowDocument?docid=10497>
- Recent power outage at NM4 on April 11, 2023 https://dbweb8.fnal.gov:8443/ECL/spin_quest/E/show?e=4205

leak checker

- Adixen ASM 340 (maintenance manual): [ASM_340 \(maintenance Manual\).pdf](#)
- Adixen ASM 340 (maintenance manual):: [asm_340 \(Operating Instructions\).pdf](#)

Chiller:

- Thermo-Electron RTE07 ([ThermoFisher cover.pmd \(nist.gov\)](#)) [Circulating-Bath_Thermo-Scientific_NESLAB-RTE-7.pdf](#)



Turbo Pump

- Pump : Pfeiffer Vacuum TMU 1001 P — Manual: https://www.ajvs.com/library/Pfeiffer_Vacuum_TMH1001_TMU1001_Manual.pdf
- Electronic unit: Pfeiffer Vacuum TC 600
- Controller: Pfeiffer Vacuum DCU 600, at the slow-control rack — Manual: <https://mmrc.caltech.edu/Vacuum/Pfeiffer%20Turbo/DCU-controller.pdf>
- Pump: Pfeiffer Vacuum HiPace 1200 — Manual: [Pfeiffer_HiPace_1200_With_TC1200_Operating_instructions.pdf](#)

- Pump: Agilent TPS Mini _____ Manual [Mini-TASK_AG81_Manual.pdf](#), parts information [Agilent TPS.pptx](#), and Technical Datasheet [Agilent_Data_TPS-MINI_2016.pdf](#)
- PUMP: APS 15 [ACP 15.pdf](#) and Technical Data Sheet <https://www.pfeiffer-vacuum.com/en/products/vacuum-generation/multi-stage-roots-pumps/light-duty-applications/air-cooled/sd-versions/12267/acp-15-standard-single-phase-manual-gas-ballast>
- Pfeiffer Vacuum Seminar: [Vacuum Day_Fermilab_11092022_CAV.pdf](#)
- PUMP: MVP 070-3 (Grey Pump) [Pfeiffer_MVP040-2_MVP070-3.pdf](#)

Diffusion Pump:

- AX-65 Diffusion Pump Manual: [6999-01-062.book \(agilent.com\)](#)
 - Pump Web Page: [Diffusion Pump AX-65, Small Vapor Jet Vacuum Pump | Agilent](#)
 - Data Sheet: [AX-65 Oil Diffusion Pump \(agilent.com\)](#)
 - Oil, SantoVac5 40 cc (We need 30 cc (30 ml)): [695405001 | Agilent](#)
 - Safety Data Sheet for Oil, SantoVac5: [Oil, Santovac5_NAEnglish \(agilent.com\)](#)
 - SANTOLUBES Safety MSDS Datasheet (Oil, SantoVac5): [MSDS-SANTOVAC-5aa.pdf \(idealvac.com\)](#)
- Slides: [Agilent Diffusion Pump.pptx](#)

Backup of Turbo Pump

- Back-up plan for IVC [Plan.pptx](#)
- HiPace 1200 [HiPace1200.pptx](#)
- Zoom chat with William Faught about Backup pumps [video1837845680.mp4](#)

Pressure Sensor

- Sensor : Pfeiffer Vacuum PKR 361
- Controller: Pfeiffer Vacuum TPG 361 (<https://www.idealvac.com/files/brochures/TPG-361a.pdf>) See UVA elog# 401.
- Controller: Pfeiffer Vacuum TPG 261 (https://www.idealvac.com/files/brochures/Pfeiffer_Single_Gauge_TPG261.pdf) See UVA elog# 401.
- Sensor: Pfeiffer Vacuum PBR 260 (<https://www.pfeiffer-vacuum.com/productPdfs/PTR27000.en.pdf>)

Heat Tape

- Heat tape: Chromalox SRL 10-1CT
 - 10 W/ft, 120V
 - Length 121 inches for IVC
 - Length 77 inches for turret
 - <https://www.chromalox.com/en/catalog/heat-trace/industrial-heat-trace-cables/self-regulating-heat-trace/srl-self-regulating-low-temperature>
- Power controller: Fuji Electric PXF4ABY2-0V1A1
 - <https://www.fujielectric.com/products/instruments/products/controller/PXF.html>
- Thermocouple wire: Omega EXPP-T-20
 - T-type, 20 AWG
 - <https://www.omega.com/en-us/temperature-measurement/temperature-wire-and-cable/thermocouple-wires/p/EXTT-TX-WIRE>
- Upgrade
 - We have a power controller with RS-485 communication (PXF4ABY2-0VMA1)
 - <https://www.instrumart.com/assets/PXF-Communications-Manual.pdf>
 - We want to make use of the RS-485 communication to
 - Read the present temperature, and
 - Read and change the set point of temperature.