

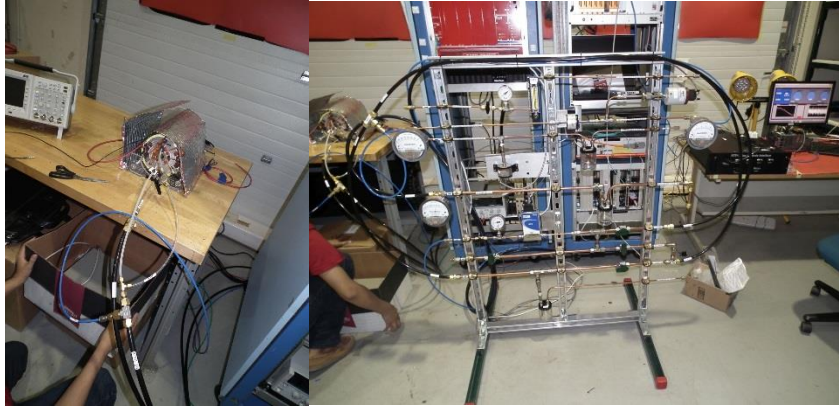
RTPC Gas System Project Status

June 12, 2019

DSG Staff: George Jacobs, Marc McMullen

1. Hardware

- 1.1. Installed gas lines to the prototype RTPC detector
- 1.2. Demonstrated gas supply startup and isolation with RTPC group
- 1.3. Performed detector purge on RTPC prototype
- 1.4. Bypassed the DMS and opened the DMS volume to atmosphere
- 1.5. Switched from HeCO₂ gas mix to ArCO₂ gas mix



Gas line connections to old RTPC

2. RTPC Gas Controls info for PSR

- 2.1. Completed gas controls and functionality testing.
- 2.2. Added Ar/CO₂ selection to the MFC selection.
- 2.3. Changed out the 200 Torr differential pressure transducer (DPT) to a 10 Torr DPT.
- 2.4. Changed out the 2000 Torr absolute pressure transducer (PT) to a 1000 Torr PT.
- 2.5. Completed gas controls training for the BONUS/RTPC group.

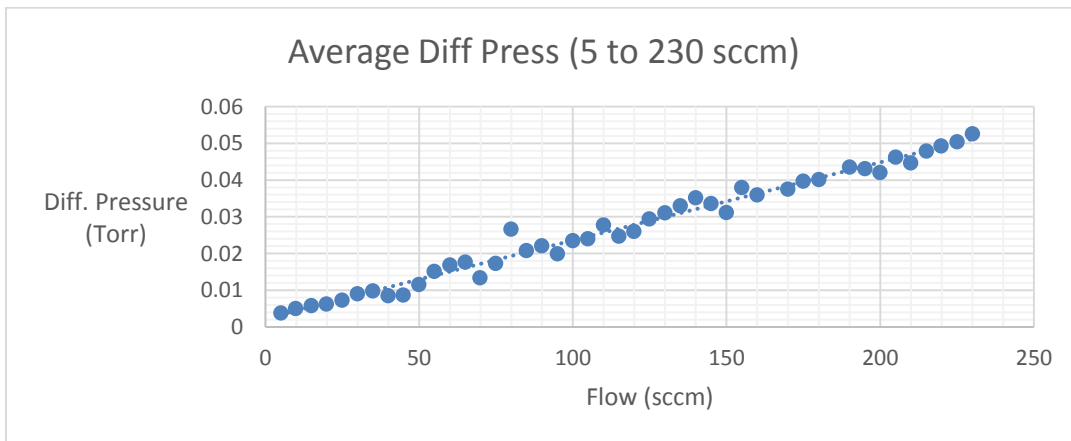


Figure 1. Flow test: full range (5 to 230 sccm) of He/CO₂ (80/20). Differential pressure increases between the DMS to the RTPC. Each point is an average of ~236 counts.