The Manufacturing, Science & Technology Center engineers, fabricates, assembles and characterizes vacuum systems, components, and processes. Staff can trouble shoot and upgrade existing vacuum systems.

**Capabilities**

- Engineering expertise to define, design and fabricate vacuum furnaces, deposition systems and any vacuum environment based process or experimental system
- Computer-aided engineering of systems including parametric 3-D solid modeling with ProDesktop (Parametric Design)
- Outgassing rate measurements and mass spectroscopy of materials and components
- Machining and welding capability for constructing unique vacuum components for prototype or production applications

**Resources**

- Experienced design engineering and fabrication staff
- Autocad and ProDesktop CAD capabilities
- Machining and welding tools
- Permanent and portable clean rooms for vacuum system assembly

**Accomplishments**

- Engineered and fabricated aluminum UHV research systems for plasma physics experiments and neutron detector calibration source
- Fabricated and designed UHV system for in-situ real time stress measurements of metal hydride films
- Engineered and fabricated several complex vacuum processing systems including deposition and exhaust tools

**Contact**

Ron Goeke, (505) 844-4171
rsgoeke@sandia.gov

Juan A. Romero, (505) 845-9264
jarome@sandia.gov