



THOR Chamber

Thermal and Optical Research Chamber



Specifications and Configurations:

- High vacuum chamber with a base pressure of 10^{-7} Torr
- 12' length and 7' internal diameter accommodate a variety of sensor sizes
- Operation as a class-1000 or better clean facility
- A 4' x 10' optical bench
- Low reflectance interior paint
- Common rigid frame supports ancillary devices such as scene target generators, black bodies, and calibration instruments
- LN² shroud provides a constant level of atmospheric pressure for constant temperature
- Heaters for bake out and rapid turnaround
- Temperature range of -200° C to +100° C with excellent temperature monitoring capabilities
- Berry mounts for vibration isolation
- Ten ASA connector ports

SDL's THOR facility is used for thermal vacuum environmental testing and space simulation. The THOR facility provides precise absolute radiometry and microradian-level characterization for optical payloads, scenario-driven evaluation of onboard processing, thermal balance of assembled payloads, and emulation of spacecraft jitter. Two smaller-scale thermal vacuum chambers are also available for vacuum bakeouts, thermal cycling, and space simulation.



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