

Thermal Vacuum Systems

Turnkey thermal vacuum systems to subject your spacecraft, systems, and components to the rigors of the space environment

Dynavac distills forty years of space simulation expertise into our line of thermal vacuum systems, and brings unmatched product quality and reliability, the industry-leading control system, and highly-responsive field support to demanding customers around the world.

Dynavac offers both highly configurable standard platforms and fully custom systems to meet unique test requirements.

Dynavac is a trusted partner of aerospace companies, universities, and government agencies, which rely on Dynavac for thermal vacuum testing- from benchtop units to massive field-constructed facilities¹



Systems overview

- Systems cover benchtop to massive field-constructed test chambers
- Standardized, configurable platform families cover entire range of satellite and test article sizes
- System designs draw on Dynavac’s forty years’ experience in space simulation
- Industry-leading integrated control and instrumentation
- Custom systems available in any size, shape, and environmental requirements
- Complete support from system design through installation through to onsite test support



Dynavac thermal vacuum system families and chamber sizes



Thermal Vacuum Systems

Chambers

- Systems cover benchtop to massive field-constructed test chambers
 - 1 foot to 40ft+ chambers
- Cylinders, cubes, D-shapes; unique chamber geometries and configurations designed to order
- Payload support structures and carts
- Vibration isolation options



Pumping

- Dry mechanical pumps for rough pumping
- Choice of turbopumps or cryopumps for high vacuum pumping
- Working pressure levels of 10^{-6} Torr or better
 - Ultrahigh vacuum designs available



Thermal control

- Mechanical, liquid nitrogen, closed-loop gaseous nitrogen, and gaseous helium cooling systems matched to cold temperature and thermal profile requirements
- Single or multi-zone thermal shrouds
- Radiant heating available
- Actively controlled thermal platens



Controls and instrumentation

- Industry-leading fully integrated control system with intuitive operator HMI
- Embedded PLC controller ensures system reliability and safe operation
- Data logging and remote diagnostics standard

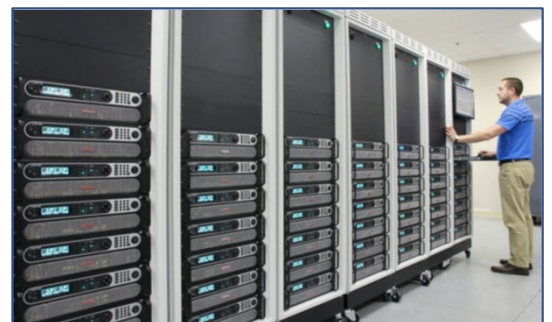


Accessories

- A wide range of available accessories including:
 - Cold plates and cold fingers
 - Signal and power feedthroughs
 - Thermal Data Acquisition System (TDAS)
 - Auxiliary Thermal Control System (ATCS)

Service and support

- On-site commissioning, training, and critical test support
- Highly responsive on-demand service calls
- Annual service contracts



Dynavac- creating the environment for your mission success