

# Tenney Thermal Vacuum Chambers

Tenney's Thermal Vacuum Chambers are capable of simulating vacuum to  $10^{-7}$  torr; have overall thermal capabilities from liquid nitrogen temperature to  $+150^{\circ}\text{C}$ , and chamber sizes ranging from 2 to 8 cubic feet in diameter. Tenney has designed and manufactured numerous custom configurations by adapting standard proven modules that provide a reliable packaged thermal vacuum chamber to meet your testing criteria.

## Features

- A highly polished stainless steel vacuum vessel
- An ultra-clean, high speed vacuum pump
- Full-opening, O-ring sealed access door
- Refrigeration systems are designed to the same exacting standards used by Tenney in the manufacture of its extensive test chamber product line



**Tenney**

## Typical Chamber Dimensions in Feet

Chamber Diameter	1.5	2	2.5	3	4	5	6
Chamber Lengths	1.5	2	2.5	3	4	5	6
	2	3	3	4	5	6	8
	3		4	5	6	8	

Note: Where shrouds are used on up to three foot diameter chambers, deduct 6" from diameter for usable work space. On four, five and six foot diameter chambers, deduct 12" from diameter for useable workspace.

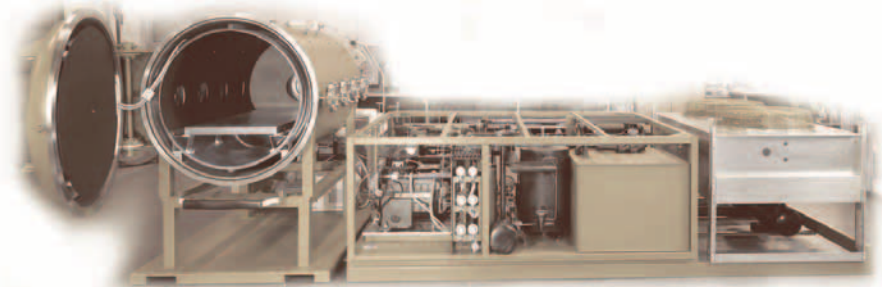
## Chamber Construction

The vacuum chamber is constructed of type 304 stainless steel that is highly polished to minimize outgassing. The vessel is provided with a full opening hinged access door. All accessory ports are provided with "O" ring sealed flanges designed to allow mating with 150# ANSI flanges. Double doors or special accessory ports can be provided when required.

## Built to your requirements. . .

You name the size and performance. Our seasoned engineering staff has designed and manufactured numerous custom configurations by adapting standard proven modules that provide a reliable packaged thermal vacuum chamber to meet your testing criteria. Choose a thermally conditioned shroud, platen or both with independent or simultaneous control to fulfill your temperature testing requirements. Depending on your requirements, a variety of reliable methods are used to condition the shroud or platen:

- A** Liquid nitrogen to simulate the "cold-black" space environment.
- B** A heated and liquid nitrogen cooled recirculating gaseous nitrogen system to provide a wide temperature range, typically -150°C to +150°C.
- C** A heated and mechanically refrigerated fluid circulation system for thermal testing through a narrow range, typically limited to -70°C at the cold end of the range and +150°C at the hot end of the range.



3' diameter by 5' deep thermal vacuum chamber featuring outdoor machinery, a roll-out platen, and a mechanically refrigerated fluid system.

## Options:

- Recording of temperature and/or vacuum
- Viewing windows
- Thermocouple feed-throughs
- Electrical feed-throughs
- Ports