



# NASA GODDARD SPACE FLIGHT CENTER: THE FACILITY 225 THERMAL VACUUM CHAMBER

A Part of NASA's Strategic Capabilities Assets Program



Facility 225 at the Goddard Space Flight Center is a horizontal loading thermal vacuum test chamber used for thermal vacuum and thermal balance testing, as well as for the bakeout of large test items. Electrical feedthroughs and liquid and gas penetrations are provided on the front, sides, and rear of the chamber. A clean tent covering the door opening provides a class 10,000 clean area for integrating hardware prior to loading it into the chamber.

For more information on the Strategic Capabilities Assets Program, visit <http://www.hq.nasa.gov/office/oim/oia/scap>.

## TECHNICAL SPECIFICATIONS

Test pressure	1 x 10 <sup>-7</sup> Torr
Shroud temperature GN <sub>2</sub> mode	-140° C to 150° C
LN <sub>2</sub> mode	-190° C
Chamber pumping speed	4.0 x 10 <sup>4</sup> liters/second
Turbomolecular pump	1,000 liters/second

## PHYSICAL CHARACTERISTICS

Test volume	2.74 meters in diameter x 4.27 meters long
Payload support	2,268 kilograms
Instrumentation ports	6 ports at 28 centimeters in diameter

## INTEGRAL INSTRUMENTATION

Pressure	Capacitance manometer (2)
	- Atm to 1 x 10 <sup>-3</sup> Torr
	Ion gauge 10 <sup>-3</sup> Torr to ultimate
Payload temperature	320 channels of thermocouples
Contamination monitor	TQCM, coldfinger, residual gas analyzer, scavenger plate

## CONTACT INFORMATION

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