



SmallSAT Thermal Vacuum Systems for the European Aerospace Market

Dynavac's SmallSat Thermal Vacuum Systems provide reliable, cost-effective testing for the small market, where rigorous testing ensures mission success. Our line CE-mark systems, coupled with local Weiss Technik service serve customers throughout Europe. With over 40 years of experience, Dynavac's turnkey systems ensure payload survivability through extreme flight conditions, from launch to orbit.

- **Vacuum Chambers:** Dynavac's renowned craftsmanship sets the highest quality standards for chamber construction, protecting your investment for years to come.
- **Robust Pumping Systems:** Our systems provide efficient and cost effective high vacuum pumping down to 1×10^{-6} mbar.
- **Thermal Control:** Mechanical and liquid nitrogen thermal systems low-earth orbit to the extreme temperatures of deep space with leading temperature stability and uniformity.
- **Unmatched Quality and Performance:** Every system is backed by the Dynavac brand of quality and customer commitment, ensuring support when you need it.
- **Intuitive User-Interface:** Our advanced user interface is designed to enhance the functionality and efficiency of our systems. The control system features automatic system pumpdown, recipe profiles, precise thermal plate temperature readings, interactive schematic with vacuum gauging to monitor chamber pressures, temperature and pressure trend graphs, ensuring you have all the data you need at your fingertips.



Model	Chamber	Interior Dimensions w x d x h	Working Dims w/platen only w x d x h	Working Dims w/platen & shroud w x d x h
Picosat	28l box	304 x 304 x 304 mm	254 x 254 x 203 mm	N/A
Nanosat	420l box	750 x 750 x 750 mm	600 x 600 x 680 mm	600 x 600 x 600 mm

SPECIFICATIONS

Thermal Control Options

- | | |
|---|-------------------|
| Liquid nitrogen with electric heaters (LN2 Models) | ■ -180°C to 150°C |
| Closed loop mechanical refrigeration and coolant circuit): | ■ -70°C to 150°C |

Vacuum Chamber

- Stainless steel construction, hinged door with DN 200 viewport, supported on mobile frame

Pumping System

- Base Pressure: 1×10^{-6} mbar w/ dry mechanical pump, turbomolecular pump, chamber repressurization system

Platen

- Aluminum or Stainless steel construction with M5 mounting holes on 50mm grid

Shroud

- Stainless steel or Copper construction, optically dense enclosure, interior painted with solar absorbing paint

Spare Ports

- (2) ISO100
- Additional ports upon request

System Control

- Automatic system pumpdown
- Thermal control with recipe profiles
- Thermal plate temperature readings
- System and personnel safety interlocks
- Interactive schematic with vacuum gauging to monitor chamber pressures
- Instrumentation housed within system framework
- Temperature & pressure trend graphs

Options and Upgrades

- | | |
|----------------------------|--------------------------------------|
| ■ Cryogenic shroud | ■ TC-channel data acquisition system |
| ■ Scavenger panel | ■ Door viewport |
| ■ Telescoping platen rails | ■ Installation, startup and training |
| | ■ Annual maintenance contracts |



Why Choose Dynavac?

As part of Weiss Technik since 2023, Dynavac benefits from the group's extensive expertise, backed by more than 50 years of experience in environmental simulation technologies, and its solutions are trusted by aerospace organizations worldwide. Our commitment to innovation and quality ensures that you receive the best testing solutions for your spacecraft.

Dynavac
40 years of innovation

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