



FACILITIES & CAPABILITIES

End-to-End Mission Assurance

Benchmark Space Systems operates two vertically integrated centers of excellence, purpose-built for rapid propulsion R&D, rigorous environmental qualification, and volume production, supporting the full mission lifecycle in-house.

9

YEARS IN OPERATION

75+

TEAM MEMBERS

49,000+

SQ FT FACILITIES

87%

WORKING DAYS
HOT FIRING

MISSION PARTNER ACROSS THE FULL LIFECYCLE



MISSION
PLANNING



ENGINEERING &
ANALYSIS



ASSEMBLY &
INTEGRATION



TESTING



LAUNCH SITE
SERVICES



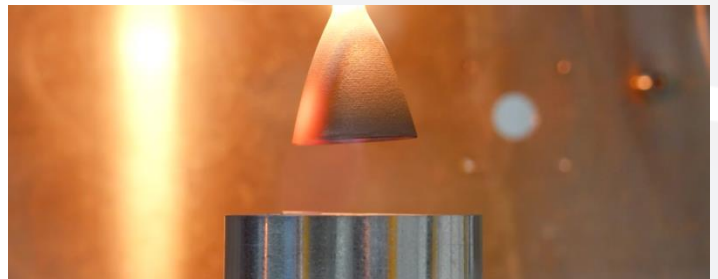
ON-ORBIT
SUPPORT



Burlington, VT

Customer Delivery Center of Excellence

- 39,000 sq ft, on Lake Champlain
- 55+ team members
- 3 TVAC chambers, vibration table, chemistry lab, and blast test bunker supporting qualification
- 15+ active programs
- 150+ thrusters delivered or on order
- 200+ systems annual capacity



Pleasanton, CA

Propulsion Development Center of Excellence

- 10,000 sq ft, plus off-site desert hotfire testing
- 15+ R&D team members
- Hot-fire, in-house machining, and TVAC equipment
- 5 thruster varieties & next-gen avionics in active development
- Concept to qualified hardware in under 12 months
- Rapid-iteration R&D process

IN-HOUSE CAPABILITIES FOR RAPID LEAD TIMES

DESIGN & ANALYSIS

Design Software

- SolidWorks
- Altium

Finite Element Analysis

- ANSYS Mechanical Enterprise
- SolidWorks Simulation

Computational Fluid Dynamics

- ANSYS Fluent
- SolidWorks Flow Simulation

Multiphysics & Modeling

- COMSOL Multiphysics
- GMAT orbital mission analysis
- In-house modeling and simulation codes

Thermal Analysis

- Thermal Desktop with RadCAD and FloCAD

PRODUCTION

- ISO Class 7 cleanrooms
- Laminar flow hoods
- ESD S20.20 compliant workstations
- Component cleaning and passivation lab

TESTING

Thermal Vacuum

- Thermal vacuum chambers to 10^{-5} Torr, -150 to 150°C
- Vacuum chamber hot-fire thrust stand
10 mN–3 N thrust, to 10^{-3} Torr

Vibration Table

- Air cooled electro-dynamic shaker up to 1,000 kg

Environmental

- Environmental chambers, -40 to 150°C
- Helium leak detectors
- Pressure vessel proof & burst test station

Electronics & Software

- Automated test bench — temperature, mass/volumetric flow rate, pressure

Pressure & Hotfire

- Pneumatic pressure test station, to 10,000 psi
- Ambient hotfire test stands (2) — 1 N–450 N thrust

CERTIFICATIONS

IPC-A-610

J-STD-001

IPC/WHMA-A-620



[BenchmarkSpaceSystems.com](https://www.BenchmarkSpaceSystems.com)



PROPELLING SPACE TRANSPORTATION

Benchmark is a trusted propulsion and space logistics partner supporting missions from architecture development through on-orbit operations and decommission. Combining heritage propulsion technologies, mission-driven engineering, and vertically integrated production, Benchmark delivers reliable mobility solutions backed by flight experience, disciplined execution, and a culture focused on mission success.

Contact us today to explore your mission.

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