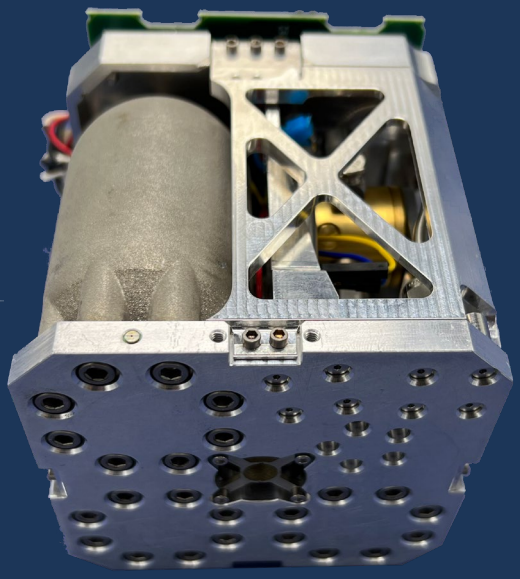
PRODUCT, CONFIGURATION, AND PRICING INQUIRIES
Sales@Benchmark-Space.com

STARLING

Cold Gas Propulsion Systems

HERITAGE MISSION PLANNED FOR 2023



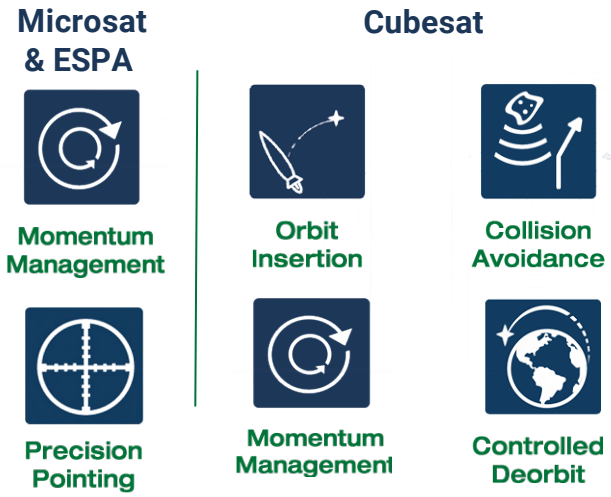
Shown in 1U Resistojet Configuration

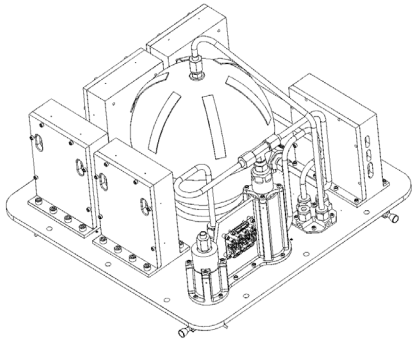
PRODUCT HIGHLIGHTS

The Starling line of gas propulsion systems is designed with unprecedented safety and configurability in its class. With propellant options that include traditional pressurant gas or our patented ODPS™ gas generation technique, and a patent-pending resistojet thruster option. Starling is an ideal system when robust and reliable propulsive capability is essential to mission success. Starling can be configured with 1-4 thrusters, often used for momentum management and attitude control and can be scaled down for primary cubesat operations.

Benchmark's On-Demand Pressurization System (ODPS™) utilizes a non-toxic powdered propellant that is inert and DOT-approved for shipping and can be pressurized on-orbit with as little as 15 W of power, improving safety and providing a path to ISS compatibility. For missions with 100 W of available power, a resistojet configuration can be used to double specific impulse over traditional cold gas systems.

PRIMARY APPLICATIONS





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SYSTEM SPECIFICATIONS

STARLING & STARLING ARDENT

STARLING SYSTEM PICTURED ON PAGE 1

PARAMATER	STARLING	STARLING ARDENT
THRUST	10 - 1000 mN	10 – 1000 mN
SPECIFIC IMPULSE	70 s	70 – 140 s
MAX THROUGHPUT / FIRING TIME	No throughput limitations	
PREHEAT	N/A	<10 Minutes
SYSTEM DIMENSIONS	0.5U +	1U +
SYSTEM WET MASS	750 g +	1.15 kg +
MINIMUM IMPULSE BIT	As low as 5 mN·s	
AVERAGE POWER DRAW (IDLE/ FIRING)	<4 W	10 – 100 W
PRESSURIZATION TIME	10-15 Minutes for ODPS (one time event) N/A if launching pre-pressurized	
FIRST FLIGHT	2023 Anticipated	2023 Planned

MORE MISSION. LESS COST.

Benchmark is a full lifecycle partner committed to supporting your mission from operational planning through asset decommission in LEO, GEO, and beyond. By combining our heritage propulsion products and advanced control systems with complementary products and services, Benchmark can deliver bundled in-space mobility solutions for 3U through ESPA and OTV spacecraft with significant cost, schedule, and capability benefits over alternative offerings.

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Contact us today to explore your mission!