

NEWSPACE MARKET · COMPANY PROFILE



Rocket Propulsion Systems (RPS)

United States · founded 2019 · rocketpropulsion.systems

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PRODUCTS

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SERVICES

newspacemarket.com/companies/rocket-propulsion-systems-rps/

as of 3 September 2026



Rocket Propulsion Systems (RPS)

Rocket Propulsion Systems (RPS) was founded in 2019 by CEO Dr. Max Ismailov (PhD Aerospace Engineering, Purdue University), who spent 2010-2019 at Blue Origin, SpaceX, Stratolaunch, and Firefly Aerospace before starting the company in Kent, Washington. RPS designs, builds, tests, and commercializes reusable propulsion systems and orbital transfer vehicles (OTVs) for space and hypersonic applications. The company's core product is Centurion, a reusable LOX/methane staged-combustion engine priced around \$150K per unit and rated for up to 50 reuses. Centurion is designed as a modular building block that can be clustered or stacked across a small satellite launch vehicle, a suborbital test vehicle, a hypersonic booster, and orbital transfer vehicles, letting RPS address multiple markets from a single engine architecture. RPS has been funded through NASA, NSF, US Air Force, and Space Force SBIR awards, most recently a \$3M Space Force contract for orbital transfer vehicle development (awarded July 2025). The company is also developing a longer-term In-Space Assembly and Manufacturing (ISAM) platform concept and is an alumnus of the NYU Stern Endless Frontier Labs and NSIN Vector programs.

This profile is generated from the live NewSpace Market catalogue. Specifications are as published by the manufacturer; every product links to a page where a request for quotation reaches the company directly.

SERVICES

Services

In-Space Assembly and Manufacturing (ISAM) platform service

RPS offers a complete In-Space Assembly and Manufacturing (ISAM) platform service for businesses to manufacture new products in space.

Product catalogue



ROCKET PROPULSION SYSTEMS (RPS)

Centurion engines

The Centurion engines are reliable and reusable rocket engines designed for small launch vehicles, offered at a competitive unit price of \$150K each. They are developed under the s

Unit price \$150K each

\$150 000



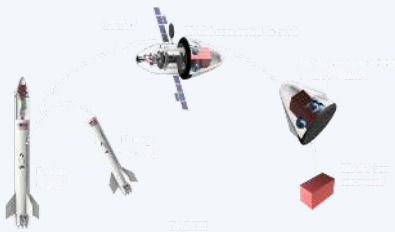
ROCKET PROPULSION SYSTEMS (RPS)

Centurion Rocket Engine

The Centurion is a fuel-rich staged combustion rocket engine designed for small satellite launch vehicles and in-space stages, utilizing liquid oxygen (LOX) and liquid methane prop

Oxidizer	Liquid oxygen (LOX)
Fuel	Liquid methane (or Liquified Natural Gas)
Cycle	Fuel-rich staged combustion
Combustion chamber pressure	103 bar [1500 psi]
Specific impulse	316 sec
Thrust	1.5 metric ton [3307 lbf]
Dry weight	15 kg [33 lbm]

price on request



ROCKET PROPULSION SYSTEMS (RPS)

In-Space Assembly and Manufacturing (ISAM) platform service

Rocket Propulsion Systems (RPS) is developing a complete In-Space Assembly and Manufacturing (ISAM) platform service for businesses that want to manufacture new, 21st century produ

price on request



ROCKET PROPULSION SYSTEMS (RPS)

Lunar Transfers

Lunar Transfers is a service utilizing an Orbital Transfer Vehicle (OTV) to perform Translunar Orbit Injections from a very low Earth orbit into a lunar orbit via a Ballistic Lunar

Propellants	cryogenic LOX/methane
Starting orbit	185 km LE0 parking orbit
Target orbit	Near-Rectilinear Halo Orbit (NRHO)
Transfer type	Ballistic Lunar Transfer

price on request



ROCKET PROPULSION SYSTEMS (RPS)

RPS Hypersonic Booster

Liquid-fueled Centurion-powered hypersonic test booster benchmarked against the LRHW.

Thrust	3307 lbf
Subscale demo speed	Mach 4.4
Subscale payload	15 kg
Subscale burn time	165 s
Full-scale payload	1500 kg
Full-scale range	560-742 km
Cost (subscale)	\$875,000

price on request



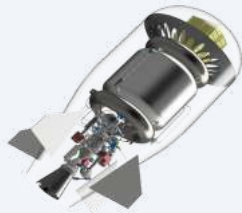
ROCKET PROPULSION SYSTEMS (RPS)

RPS Orbital Transfer Vehicle (OTV)

The RPS Orbital Transfer Vehicle (OTV) is a cryogenic propulsion system designed for rapid and cost-effective orbit transfers from Low Earth Orbit (LEO) to Medium Earth Orbit (MEO)

Full thrust	3,307 lbf
Vacuum ISP	374 sec

price on request



ROCKET PROPULSION SYSTEMS (RPS)

RPS Suborbital Launch Vehicle

The RPS Suborbital Launch Vehicle is a single-stage, reusable, liquid-fueled, vertical takeoff rocket designed for suborbital flights for commercial, government, and defense applic

Stages	single-stage, VTVL
Target apogee	50-100 km
Prototype testing	targeted 2026

price on request

Contact Rocket Propulsion Systems (RPS)

Open the company profile on NewSpace Market to see full specifications and datasheets, and to send a request for quotation that reaches the manufacturer directly.

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