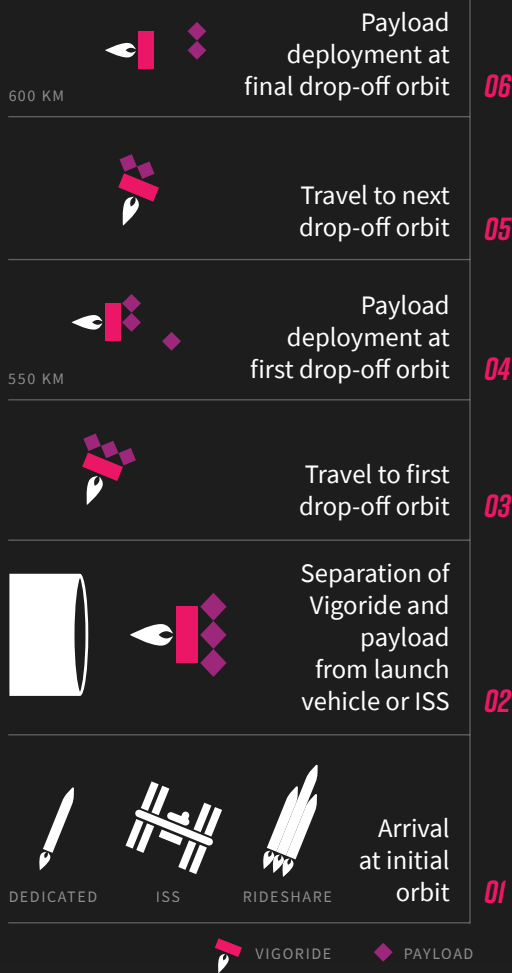


VIGORIDE™

TRANSPORTATION SERVICE

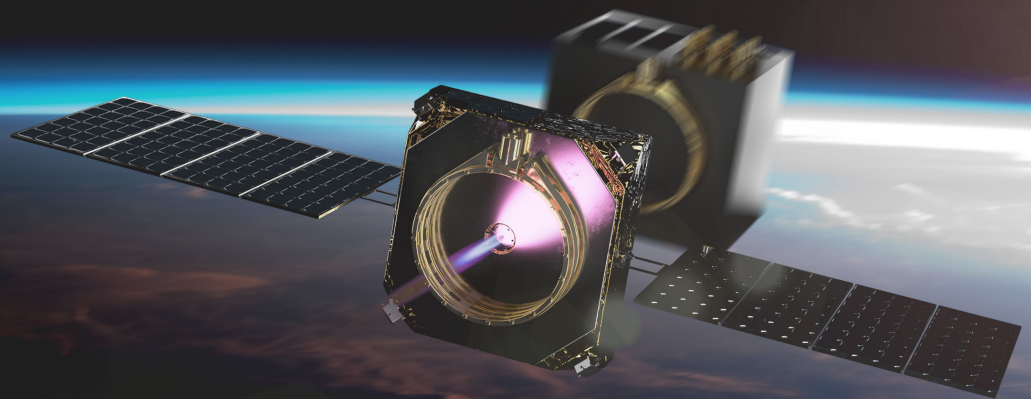


YOUR CONNECTING FLIGHT IN SPACE

Presenting Vigoride: in-space orbit transfer service for satellites. Once in space, Vigoride delivers your payload(s) to one or multiple custom drop-off orbits.

Vigoride enables your satellites to be placed exactly where you need them to be in space. The first leg of the journey is performed by a dedicated small launch vehicle, rideshare via a large rocket, or deployment out of the International Space Station. The Vigoride transfer vehicle will then transport your payload to its final destination.

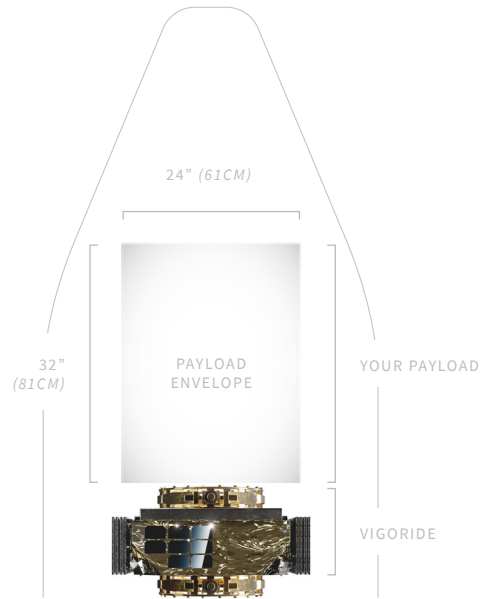
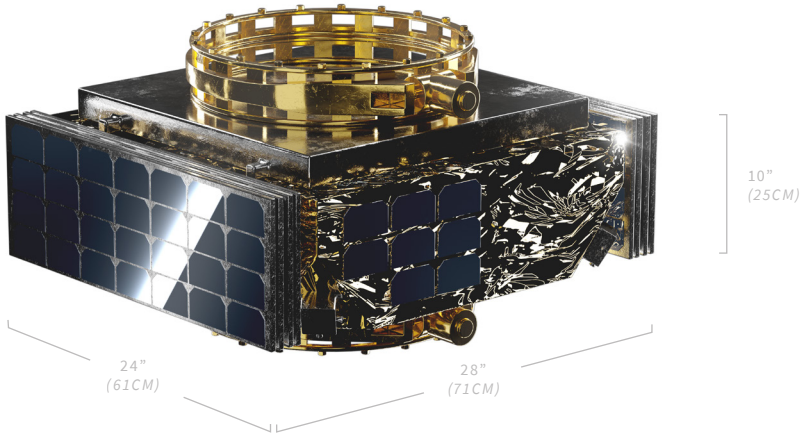
To achieve unprecedented performance, maximum safety, and the lowest cost, Vigoride is powered by Momentus' proprietary water plasma engines. For now, Vigoride is expendable, but future versions will be reusable, capable of serving multiple missions while refueling with water in space.





VIGORIDE™

TRANSPORTATION SERVICE



SMALL LV ENVELOPE

VIGORIDE SPECS

WET MASS (WITHOUT PAYLOAD): 80 KG
 MAXIMUM PAYLOAD MASS: 250 KG
 TOTAL IMPULSE: >100,000 N-S
 MAXIMUM ΔV: >1 KM/S FOR 50 KG PAYLOAD

WATER-BASED MICROWAVE ELECTROTHERMAL PROPULSION
 3-AXIS STABILIZED WITH ELECTROTHERMAL ATTITUDE CONTROL THRUSTERS
 CUSTOM MACHINED ALUMINUM BUS WITH INTEGRATED AVIONICS

TYPICAL MISSION SCENARIOS

LAUNCH OPTION & INITIAL ORBIT	LEO ORBIT RAISING		LEO CONSTELLATION DEPLOYMENT		SSO ORBIT PLANE ADJUSTMENT	
	MAXIMUM PAYLOAD KG	TRIP TIME MONTHS	MAXIMUM PAYLOAD KG	TRIP TIME MONTHS	MAXIMUM PAYLOAD KG	TRIP TIME MONTHS
DEDICATED SMALL LAUNCH VEHICLE 300 KM ALT.	140	2 - 5	250	1 - 3	150	4 - 7
RIDESHARE LAUNCH IN ESPA VOLUME 600 KM ALT.	220	1 - 5	250	< 1	250	4 - 6
DEPLOYMENT FROM ISS 400 KM ALT.	160	2 - 5	250	< 2	N/A	N/A

LEO: LOW EARTH ORBIT | SSO: SUN SYNCHRONOUS ORBIT | LTAN: LOCAL TIME AT ASCENDING NODE



ESPA ENVELOPE

STANDARD RIDESHARE INTERFACE

PAYLOADS CAN BE ATTACHED TO VIGORIDE USING ANY STANDARD 15" RING OR 15" 4-POINT MOUNT ADAPTER. CUSTOM ADAPTER OPTIONS ARE ALSO AVAILABLE.
 STANDARD POWER CONNECTIONS AVAILABLE FOR KEEP-ALIVE OPERATIONS DURING TRANSFER.

KEY TECHNICAL ADVANTAGES

- UP TO 3 TIMES FASTER THAN XENON ELECTRIC PROPULSION
- UP TO 2 TIMES THE PAYLOAD AS CHEMICAL PROPULSION
- NON-TOXIC PROPELLANT (100% WATER)
- NO PRESSURE VESSELS
- NO HIGH VOLTAGE

BOOK YOUR RIDE

sales@momentus.space | +1 (650) 564-7820 | momentus.space