CAPSULE SPACE

WATERCUBE

Product Brochure
Rev. 3.0 22/09/2026

PLUGANDPLAY Takeoff L'acceleratore Aerospace e Advanced Hardware della Rete Nazionale CDP esa business incubation centre Bavaria kopa. DIANA INNOVATOR cdp Fondo Nazionale Innovazione CDP Venture Capital Sgr Moonstone

WATERCUBE

Water-based resistojet propulsion system.

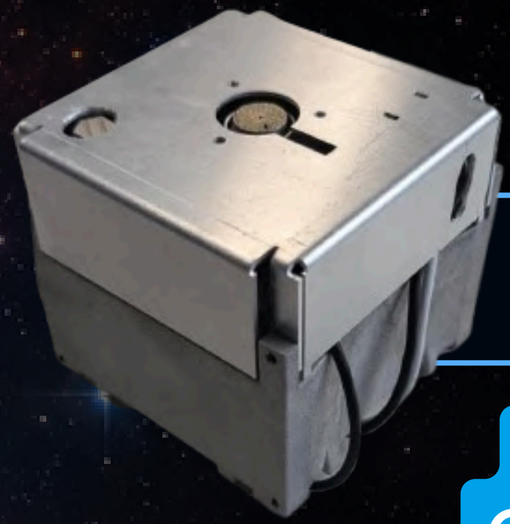
50% FASTER LEAD TIME

EASIER INTEGRATION AND TEST

SIMPLER LOGISTIC

RELIABLE IN-ORBIT

RESILIENT SUPPLY CHAIN



WaterCube
TRL 7

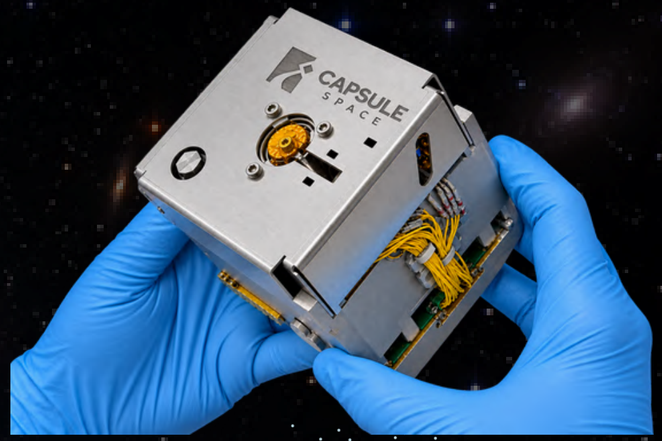
IOD in
Q4 2026

UP TO 20% MISSION COST SAVINGS PER SATELLITE

UP TO 500K EURO COST SAVINGS PER SATELLITE

HOW DOES WaterCube WORK?

Flight Model



Water Tank

Electrical power

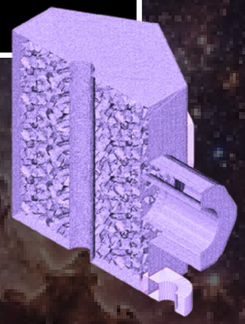
Liquid

Vaporization Cell

Steam

Nozzle

Proprietary technology



Thrust: 4 mN
Isp: >95 s

Valves, sensors, control & monitoring electronics board

SYSTEM DATASHEET (1/2)

	Value	Unit of Measurement
SPECIFIC IMPULSE	95 - 110	[s]
TOTAL IMPULSE	150 - 1200 (*)	[Ns] (*) depending on amount of propellant
THRUST	**4**	[mN]
POWER DURING FIRING	25 warm-up (4 minutes) 21 - 30 maximum continuous 9 – 18 if used pulsed (**)	[W] (**) pulsed operations yield lower average thrust
UNIT VOLUME	0.75 - 2 U (***) 0.9 - 2.2 Kg	[U] (1U = 10 cm3) (***) depending on amount of propellant
ELECTRICAL INTERFACES	1 power and signal connector Harwin; 12 V or 28 V power interface CAN or RS-422 signal interface	
MECHANICAL INTERFACES	M3 screws (customizable size and position)	

SYSTEM DATASHEET (2/2)

WaterCube Size [U] *more configurations available, contact us for information	**Margined Wet Mass [kg]**	**Propellant Mass [kg]**	**Total Impulse @ 95 s Isp [Ns]**	**Total Impulse @ 110 s Isp [Ns]**
0,75	0,77	0,10	75	86
1	1,00	0,28	260	301
1,5	1,60	0,72	665	770
2	2,20	1,15	1069	1238

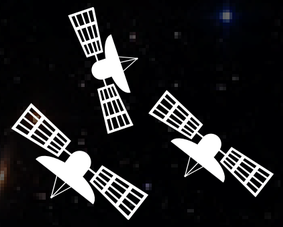
Isp [s]	**Power [W]**
95.1	25.3
100.8	26.7
106.2	28.2
110.7	29.9

PULSED MODE	**Value**
Average Thrust (depending on duty cycle)	1 – 3 [mN]
Duty cycle and period available	20% - 70% 1 - 30 s

USE CASES



Fast responsive constellation deployment



Proximity operations of uncooperative space assets



Improved ISR capabilities: lower orbiting altitude available



Responsive collisions and threats avoidance



Life extention of up to +3 years

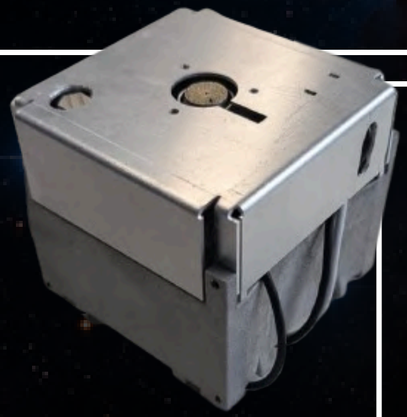
CASE STUDY: WATERCUBE

Satellite Form Factor	3U	6U	12U	Smallsat
Propulsion Unit Volume [U]	0.8	1.5	2	2 x 4
Propellant Mass [kg]	0.12	0.72	1.15	4.60
Assumed Spacecraft Wet Mass [kg]	5.4	10.8	21.6	100.0
Total Impulse @ 95s Isp [Ns]	11	665	1069	4279
Total Δv [m/s] @ 95s Isp (4 mN thrust/unit; 3 mNs MIB)	20.9	63.8	51.0	43.9
Added Lifetime / Benefits (*CAM = Collision Avoidance Maneuvre)	• Simplified integration and test • 1.5 years + 30 CAM	• Simplified integration and test • 2.5 years + 30 CAM	• Simplified integration and test • 2 years + 30 CAM	• Simplified integration and test, reduced propellant loading cost • 2 year + 30 CAM

PRICING WaterCube

LEAD TIME: 14 weeks from order for Small, Medium, Large and XL CLuster COTS

Small (COTS)	WaterCube 1U	€35k
Medium (COTS)	WaterCube 1.5U	€39k
Large (COTS)	WaterCube 2U	€44k
Custom	Any size between 0.75 - 2U	Contact us for details
XL Cluster (COTS)	Any WaterCube size clustered (2x, 3x, or 4x units)	Contact us for details



1U model

Other services	Propellant Loading
	Personnel Training (AIT & Operations)
	Integration Support

BENEFITS: WATERCUBE VS CHEMICAL

Same cost savings for both chemical and electrical

Different cost savings for chemical and electrical

Satellite Form Factor	3U	6U	12U	Smallsat
Propulsion Unit Volume [U]	1	1.5	2	2 x 4
Integration & test saving cost [€]	54k	63k	72k	116k
Propellant loading saving cost [€]	4.5k	9.9k	16k	67.5k
Launcher documentation saving cost [€]	12k	12k	12k	12k
Cost saving wrt **CHEMICAL** equivalent [€]	25k	28.8k	21k	26k
Cost Savings to final operator [€]	**95K**	**113K**	**121K**	**221K**

BENEFITS: WATERCUBE VS ELECTRIC

Same cost savings for both chemical and electrical

Different cost savings for chemical and electrical

Satellite Form Factor	3U	6U	12U	Smallsat
Propulsion Unit Volume [U]	1	1.5	2	2 x 4
Integration & test saving cost [€]	54k	63k	72k	116k
Propellant loading saving cost [€]	4.5k	9.9k	16k	67.5k
Launcher documentation saving cost [€]	12k	12k	12k	12k
Cost saving wrt **ELECTRIC** equivalent [€]	54k	104k	157k	311k
Cost Savings to final operator [€]	**124K**	**189K**	**257K**	**506K**

CAPSULE SPACE

LinkedIn

FRANCESCO MARINO – CEO
Francesco.marino@capsule-corp.biz
Tel. +39 380 461 4060

MILAN, ITALY

IVAN NIZZOLA – COO
Ivan.nizzola@capsule-corp.biz
Tel. +39 340 214 1289

Capsule-Space.com