

CubeSat Warm gas Thruster

Product Highlights

Benchmark Space Systems' DFAST product line was developed to provide the benefits of reliable, high-precision positioning and control capability with unprecedented **safety and affordability**.

This innovative system uses inert, non-toxic powdered fuel that is filled before shipping and remains inert until a pressurization command is triggered on-orbit. The ability to fill, ship, store, and inhibit an assembled & fueled DFAST is "a game changer" for **lowering launch manifest and operational costs**, improving safety and reliability over alternatives, and providing a path to ISS compatibility.

Additive manufacturing on primary components delivers **unbeatable lead time**, making this the premier propulsion solution for your next CubeSat mission.



Illustration:
0.5 U configuration.

Applications



DFAST Configurable for 1U – 24U CubeSats

Thruster Size(s)	10 mN - 1 N	Min Impulse	≤ 0.05 mN·s
Non-toxic Propellant	Inert, solid	Power (pressurization)	10 W
Specific Impulse (hot)	105 - 150 s	Power (resistojet)	15 - 50 W
Specific Impulse (cold)	70 s	Power (thrust valve)	< 3 W

Common Configurations

(Configurable to 2500 N·s)

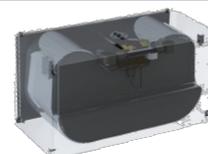
Volume
(hot) **Total Impulse**
(cold) **Total Impulse**
Wet Mass



0.5 U
75 N·s
40 N·s
750 g



1 U
180 N·s
100 N·s
1500 g



2 U
430 N·s
240 N·s
2700 g