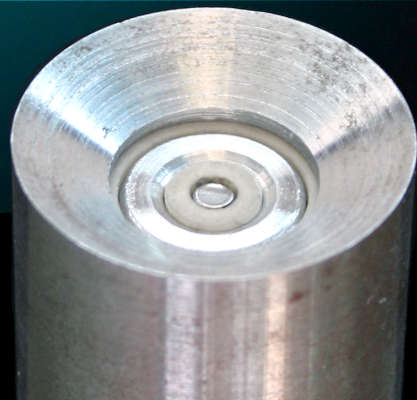


Solid State Propulsion

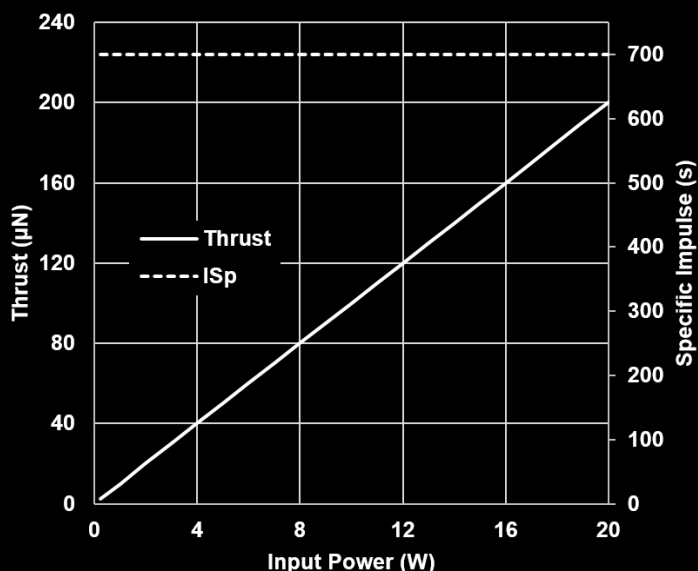
Vacuum Arc Thruster

Version 2.1: June 2023

A completely solid-state design removes the mass constraints associated with tanks. Pulsed operation enables a wide input power range of 0.25-20W, for a variable thrust of 2.5-200 μ N, and a constant specific impulse of 700s independent of power. The high-density metal fuel allows a highly compact design, and dual anodes enhance pulse ignition reliability as seen in the thruster head to the right. These factors all make this Vacuum Arc Thruster a compact and reliable propulsion system.



Thrust, Specific Impulse vs Power



Predicted Performance

Input Power	0.25-20W
Thrust to Power Ratio	10 μ N/W
Maximum Thrust	200 μ N
Specific Impulse	700s
Thruster Mass	320g
Fuel Mass	20-40g
Total Impulse	200Ns
Volume	250cm ³ (2P/0.25U)

Contact

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