

Busek High Power Hall Thrusters

BUSEK
Space Propulsion
and Systems

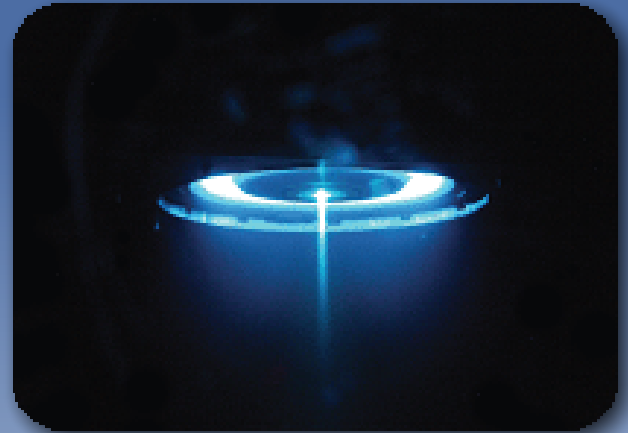


*Busek's mid to high power Hall Effect Thrusters span between 1.0 and 20.0 kW
Typical high power Isp range: 1400 to 3000 s*

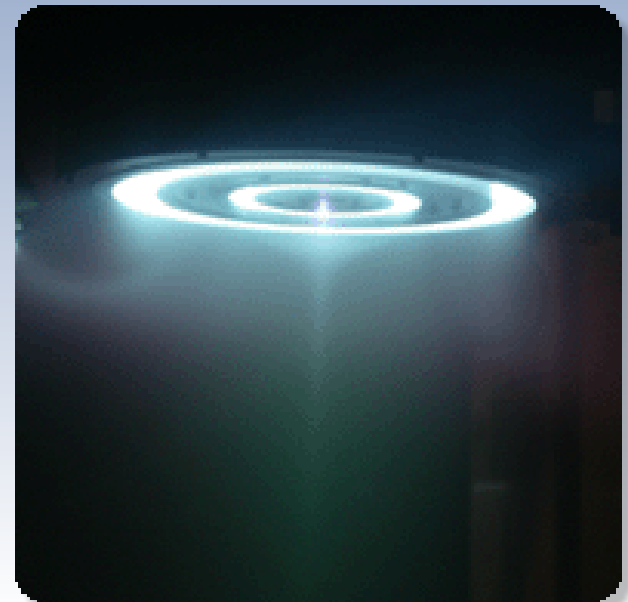
For over 15 years, Busek Co. has been developing next generation high performance electric propulsion systems. Our family of U.S.-designed Hall effect thrusters spans the power spectrum from 100 W to 20 kW and produce 5 mN to 1 N of thrust with specific impulse values varying between 1,000 and 3,000 seconds. Our designs embody patented features, combined with precise control of the magnetic field distribution and a short acceleration zone that result in thrusters with high propulsive efficiency and high total impulse.

Busek has studied various Hall thruster configurations, including circular, clustered, racetrack, and nested. Busek has also used Hall thrusters to create plasmas composed of various elements / propellants ranging from traditional propellants such as Xenon to advanced, high-energy propellants. Busek has also studied metallic propellants for in-situ resource utilization that can dramatically benefit interplanetary missions.

As part of Busek's electric propulsion capability, the company offers its customers complete, fully integrated propulsion systems that include the Hall effect thrusters, cathodes, power processing and digital control units, and propellant management systems.



Busek's dual-mode 20kW Hall Effect Thruster BHT-20K operating at 20kW output power in AEDC's 12V Vacuum Test Facility. *Photograph courtesy of AEDC*

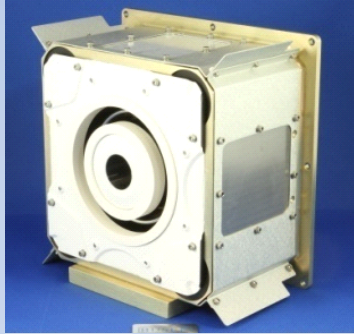


Busek's 10kW nested Hall Thruster under test

High Power Hall Effect Thrusters

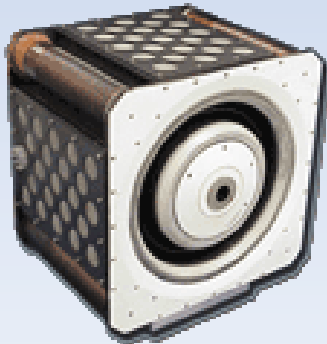
Technical Specifications

BHT-1500



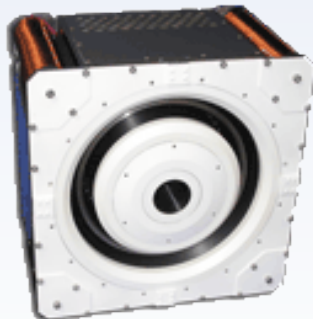
Designation	BHT-1500
Input Power Range	1.0 - 3.0 kW
Thrust (at Nominal Power)	101 mN (at 1.5 kW)
Nominal Total Specific Impulse	1670 s

BHT-8000



Designation	BHT-8000
Input Power Range	4.0 - 12.0 kW
Thrust (at Nominal Power)	507 mN (at 8 kW)
Nominal Total Specific Impulse	1880 s

BHT-20k



Designation	BHT-20k
Input Power Range	5.0 - 20.0 kW
Thrust (at Nominal Power)	807 mN (at 15 kW)
Nominal Total Specific Impulse	2320 s

About Busek Co, Inc

Busek Co., Inc. is an engineering-focused space propulsion company that provides a wide range of thrusters, electronics, research and complete mission and system engineering support. Busek's flight heritage includes: FalconSat-5, Lisa Pathfinder, TacSat-2, and FalconSat-3.