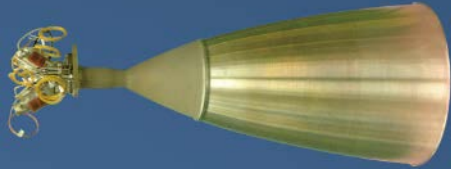


IHI Aerospace has manufactured and delivered over 200 bipropellant thrusters for rockets and satellites since the start of development in 1964.

## Hydrazine Bipropellant Thrusters



*High performance  
(BT-4)*

### 450N Thruster (Hydrazine/NTO)

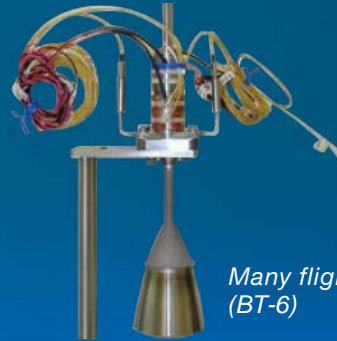
Thrust: 450[N](Nom)  
Isp: 329[s](Nom)  
Inlet pressure:  $<F>1.69/<O>1.62$ [MPa](Nom)  
Demonstrated life: 32,850[s]

Status: Flight proven

### 22N Thruster (Hydrazine/NTO)

Thrust: 21.5[N](Nom)  
Isp: 295[s](Nom)  
Inlet pressure: 1.69[MPa](Nom)  
Throughput: 583[kg]

Status: Flight proven



*Many flight heritages  
(BT-6)*

## MMH Bipropellant Thrusters



*Low-price, high-reliability  
(HBT-5)*

### 490N Thruster (MMH/MON3)

Thrust: 478[N](Nom)  
Isp: 316[s](Nom)  
Inlet pressure: 1.72[MPa](Nom)  
Demonstrated life: 15,000[s]

Status: Flight proven

### 120N Thruster (MMH/MON3)

Thrust: 124.4[N](Nom)  
Isp: 274.9[s](Min)  
Inlet pressure: 2.05[MPa](Nom)  
Demonstrated life: 40,000[s]  
Throughput: 446[kg]

Status: Flight proven



*No limitation for  
pulse-firing cycle time  
(HBT-1)*

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