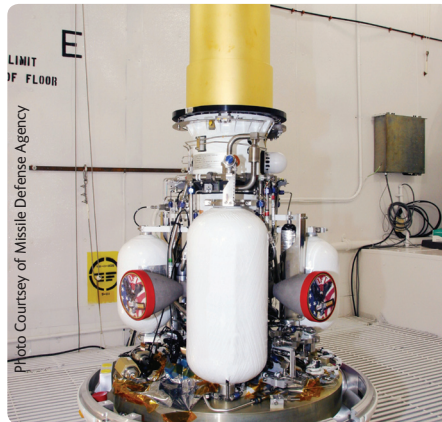


Joule - Thomson (JT) Cryostat Cooling Systems

COBHAM

The most important thing we build is trust



Applications

In-flight seeker cooling.

Physical Specifications

Custom configured to meet project needs.

Size Range:

- Torroids (Large) Up to 20 inch (50 cm) DIA
2 inch (5 cm) tube
- Torroids (Small) Typical 4.75 inch (12 cm) DIA
0.312 – 0.75 inch (0.79 – 1.9 cm) tube

- Body Materials
- Inconel
 - Stainless Steel
 - Titanium

- Service
- Argon
 - Krypton
 - Nitrogen

- Valve
- Explosive actuated, integral
MIL-I/DTL-23659 or NSI/Equivalent

Performance Characteristics

- Operating Temperature Range -50°F to 165°F (-45°C to 73°C)
- Operating Pressure Range 5,000–8,225 psig

Pure gas delivery to Joule-Thomson (JT) based Infrared Seekers is critical to their reliable operation. Cobham explosively actuated gas supply assemblies are custom designed to fit within any seeker cavity and deliver a variety of gases (such as argon, nitrogen, and krypton).

Cobham gas systems are always welded closed and include an integral miniature pyrovalve for reliable gas release. These miniature valves utilize the same “metal to metal” sealing technology we first pioneered over 50 years ago to ensure the JT gas flow remains pure from start to finish.

Cobham bottles are available with test ports (active or non-active), utilize only MIL-I/DTL-23659 initiators, filtered outlets, shielded cable assemblies, and dot certifications (when required).

All Cobham IR gas products are lot certified in our unique “gas purity lab” where purity is measured at the molecular level via mass spectrometers, laser particle counters, and hydrocarbon analyzers. If required, gas assemblies can be instrumented and operated in concert with JT cryostats while having the actual cool-down and run rates monitored.

Cage Code 62323
For further information please contact:

Cobham Life Support
2801 75th Street North
St. Petersburg, FL 33710 USA

Tel: +1 (727) 345 8000
Fax: +1 (727) 345 4217

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