



HERMETIC SEAL TECHNOLOGY
G L A S S T O M E T A L S E A L S

Hermetic Seal Technology, Inc.

2150 Schappelle Lane

Cincinnati, OH 45240

Phone: 513.851.4899

Fax: 513.851.4817

Email: sales@HermeticSealTech.com

Website: www.glass-to-metal.com

Lithium Battery Seals

Hermetic Seal Technology (HST) has been setting the standards for custom glass-to-metal seals, especially lithium battery seals, since 1994. We have specially formulated Lithium corrosion resistant glass to greatly reduce corrosion and to isolate lithium electrolytes, such as lithium / manganese dioxide (LiMnO₂), lithium / sulfur dioxide (Li/SO₂), and lithium / thionyl chloride (Li/SOCl₂) in lithium batteries, from foreign agents. HST lithium battery seals can withstand corrosive chemicals,

[+ more](#)



Specifications

Types of Lithium Battery Systems

Lithium / Manganese Dioxide (LiMnO₂)
 Lithium / Silver chromate (Li-Ag₂CrO₄)
 Lithium / Silver oxide+vanadium pentoxide (Li-Ag₂V₄O₁₁)
 Lithium / Sulfur Dioxide (Li/SO₂)
 Lithium / Sulfuryl Chloride (Li-SO₂Cl₂)
 Lithium / Thionyl Chloride (Li/SOCl₂)

Oil Exploration and Down Hole monitoring
 Lithium Systems in Communication Systems,

Applications	Torpedoes, and Missiles Medical Lithium Battery Applications for Implantable Defibrillators, Pacemakers, Neurostimulators, and Drug Infusion Systems Lithium Batteries in Consumption Meters, Memory Back-up, Portable Diagnostic Equipment, and Emergency Locator Transmitters
Body Materials	Mild Steel Stainless Steel Titanium
Pin Materials	52 Alloy Copper Core 446 or 52 alloy Molybdenum Platinum-Iridium Stainless Steel Other Materials Available Upon Request
Glass Materials	Babal Cabal 12 and other low silica glass Corning 9010 Corning 9013 HST Custom Lithium Corrosion Resistant Glass TA-23 Other Borosilicate, Barium Alkali, and Soda-Lime glass
Capabilities	Brazing Glass Formulation Glass Sealing Resistance Welding
Testing	Hermeticity Testing (100 % leak tests are performed on all seals) Hypot (High Voltage) Testing / Breakdown Voltage Insulation Resistance Testing (Isolation)
Outsourced Services	Electrochemical Corrosion Testing Glass Smelting Humidity Testing Laser Welding

Machining
Plating
Salt Spray Testing
Stamping

Hermeticity

1×10^{-8} cc/sec helium leak rate

Production Capability

We have the ability to handle orders from ten parts to millions of parts
We can also do sample parts
HST can help you with free hermetic seal design and development to insure you have a reliable and robust glass to metal seal

Glass-to-Metal Seal Advantages

- HST hermetic seals are hermetic (leak - tight) to isolate lithium batteries from external moisture and foreign contaminants to ensure long battery life
- HST glass seals can resist extreme temperature and pressure variations while maintaining hermeticity
- Our specially formulated glass materials have high corrosion resistance to lithium electrolytes eliminating glass corrosion which reduces shelf life
- Our "Clean-Seal" technology ensures the high quality of glass-to-metal parts that are free from oxidation and chemical residue that can effect welding and material corrosion resistance

Industries Served

Aerospace
Automotive
Electronic
Healthcare
Medical
Military
Oil Exploration
Sensor

Companies Using HST Seals

Halliburton
Schlumberger

Quality Control

ISO Compliant