

Hermetically Sealed Connectors and Highly Engineered Interconnection Products



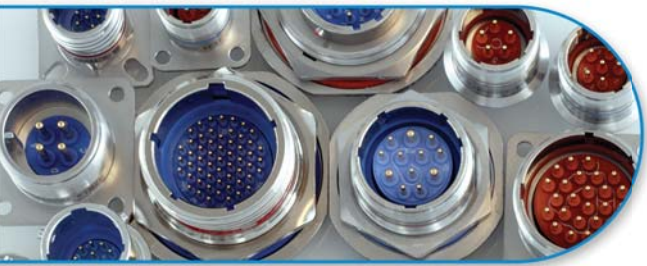



Seek, Solve, Serve

Two great brands, one company

HCC Interconnect Technologies has brought the skills and capabilities of Hermetic Seal Corporation and Sealtron Inc under a single management. Together these two historic brands have the engineering skills and the production capacity to solve any high reliability interconnection problem, utilizing glass-to-metal-sealing or molding technology using PEEK and Viton. HCC Interconnect Technologies is committed to developing these technologies into new products and markets.

Military grade circular and rectangular connectors, high temperature high pressure bulkheads, highly engineered hermetic multi-pin interconnection headers and single feed thrus.





Highly Engineered Custom Hermetic Interconnects

HCC Interconnect—utilizing specialty materials, manufacturing to exacting tolerances and creating exceptional performance in demanding applications: surgical and scientific instruments; motion, pressure and temperature sensors in industrial, energy and flight control applications; military and space systems.

HCC Interconnect is the industry leader in the use of specialty alloys and aims to provide our customers with a product that meets their exact needs. Specialty metals such as Titanium, Inconel, Monel, Hastelloy, Nitronic, Tungsten, Paliney, Palladium, and Type K & N Thermocouple combinations require experience and knowledge to make high performance glass-to-metal-seals.

HCC Interconnect has manufactured very specialized product that has, in the completed application, achieved a fine leak rate as low as 1×10^{-13} cc/second Helium at 1 atmosphere. Meeting 1×10^{-9} in HCC's finished product is routinely accomplished, exceeding the requirements of all current military connector specifications.



www.hccinterconnect.com



Hermetically Sealed Military Grade Circular & Rectangular Connectors

Sealtron specializes in the manufacture of a full range of qualified Military Grade Circular connectors. Its world class factory utilizes lean manufacturing methods, is skilled in managing customer inventories and offers the most competitive lead-times in the world.

Hermetic Seal, while qualified to some of the same specifications, is more heavily focused on providing customized circular connectors and rectangular configurations of all types.

▲ Qualified Products Listed:

- ✓ MIL-DTL-38999 Series I, II & III (Sealtron & HSC)
- ✓ MIL-DTL-26482 Series I & II (Sealtron & HSC)
- ✓ MIL-DTL-83723 Series III Types B & T (Sealtron & HSC)
- ✓ MIL-DTL-26500 (HSC)





▲ **Other Qualifications:**

- ✓ EN2997 Class Y & YE (Sealtron)
- ✓ ESC 10, Class YE (Sealtron)

▲ **Commercial Equivalents to:**

- ✓ MIL-DTL-5015
- ✓ MIL-DTL-24308
- ✓ MIL-DTL-83513
- ✓ MIL-C-28748
- ✓ NAS 1599
- ✓ MIL-C-81703
- ✓ MIL-DTL-38999 Series IV
- ✓ MIL-C-81511
- ✓ MIL-C-24217
- ✓ MIL-C-24231
- ✓ MIL-C-22249
- ✓ MIL-C-19572
- ✓ MIL-C-22539
- ✓ ESC 11, Class YE
- ✓ MIL-C-25955



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Custom Design Expertise

HCC's Interconnect businesses specialize in the customizing of any of our products to meet your specific project needs with in-house machining, glass pre-form manufacturing and an extensive testing capability. Customization may take the form of, but is not limited to:

- ▲ **Alternate body diameters and lengths**
- ▲ **Alternate pin diameters, lengths and termination types**
- ▲ **Specialty materials and finishes**
- ▲ **Alternate insert arrangements**
 - ✓ We can design an insert arrangement with any combination of pin diameters to meet your needs for both power and signal throughput
- ▲ **Socket contacts**
- ▲ **Higher Dielectric Withstanding Voltage rating**
- ▲ **Alternate O-ring materials and groove configurations suitable for custom mounting needs**
- ▲ **Guide pins for blind mating applications**
- ▲ **Threads on housings to allow attachment of back-shells or next level assemblies**
- ▲ **Threaded inserts or threaded bushings in flange mounting holes**
- ▲ **Alternate glass materials to withstand special circumstances, such as:**
 - ✓ Stable Insulation Resistance values at high temperatures
 - ✓ Temperatures up to 800°F (426°C) at lower pressures
 - ✓ Extreme levels of thermal cycling (-85°F to +800°F or -65°C to +426°C) at lower pressures
- ▲ **Precious metal plated surfaces on the housing to improve ground connection from the housing to next level assembly to reduce the impact of EMI conditions**



Oil Field Services Products

High Temperature High Pressure (HTHP) Bulkheads, Single Pin Feed Thrus, Boots and accessories; Glass-To-Metal-Sealed (GTMS) & PEEK products

Hermetic Seal Corp (HSC) is an expert in the design and manufacture of high pressure glass-to-metal sealed (GTMS) and PEEK (Polyetheretherketone) electrical bulkheads for the down hole oil and gas drilling and logging instrument market, and the upstream sensor market. HSC's products are used in Wire-line and MWD tools and well completions by the world's leading Oil Field Services companies. Our products also see service in geophysical instruments and systems.

HSC's standard range of GTMS bulkheads are designed to function in the severe operating conditions commonly encountered in oil & gas exploration and have been exposed to a combination of pressures and temperatures in excess of 25,000 PSI at 400°F (204°C).

Building on this product experience HSC is extremely proficient in customizing the design of high pressure GTMS bulkheads to meet even higher pressures and temperatures, up to 35,000 PSI at 500°F (260°C). We have the experience to design, manufacture and test your product.

HSC also makes a range of single feed thrus in PEEK and PEKK and supports its customers with mating Socket & Viton Boot Kits.



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HCC Interconnect Technologies

Military grade circular and rectangular connectors, high temperature high pressure bulkheads, highly engineered hermetic multi-pin interconnection headers and single feed thru.

Facility size, manufacturing equipment, and test capabilities:

- ▲ **166,000 sq. ft. of office and manufacturing space across three facilities**
- ▲ **Design expertise and modeling capabilities**
 - ✓ Mechanical and electrical
- ▲ **Experienced design and process engineers**
- ▲ **Responsive Sales and Customer Service representatives**
- ▲ **Engineering support**
- ▲ **High precision machining facility experienced in the manufacture of shells, housings and electrodes in high performance alloys**
- ▲ **High and low temperature brazing**
- ▲ **Glass-to-Metal Sealing**
- ▲ **In-house cleaning**
- ▲ **Precious metal plating operations**
- ▲ **Secondary assembly operations**
- ▲ **Testing to**
 - ✓ Pressures of 40,000 PSI
 - ✓ Pressure at temperature to 35,000 PSI @ 500°F (260°C)
 - ✓ Mil Standard or specific customer requirements
- ▲ **ISO 9001 registered at all facilities**
- ▲ **AS9100 registered at all facilities**



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