



HUTCHINSON®



We make it ***possible***

# PRECISION SEALING SYSTEMS AEROSPACE



# IN THE AIR, IMPROVING SAFETY AND COMFORT



Our technologies ensure comfort and safety in commercial and military aircraft, regional, business jets and helicopters, from the cockpit and jet engines to the cabin, wings and fuselage. Manufacturers enhance aircraft safety and cabin comfort with our end-to-end sealing solutions combining materials science and engineering.

## HIGH SECURITY SEALS ABOVE THE CLOUDS

Hutchinson designs and manufactures highly engineered sealing solutions with unique customization, meeting the required levels of performance for military, industrial and commercial aircraft applications.

Aerospace applications include turbine engines, hydraulic, fluid and fuel lines, braking and landing gear systems.

We have obtained AS9100D and EN 9100 certifications towards the Aerospace Quality System, A2LA ISO/IEC 17025, PRI/NADCAP AC7115 regarding Non Metallic Testing Lab.

In addition to providing compounds for different temperature ranges, we are also capable of developing material based on customers specific application needs such as silicone, polychloroprene or perfluoro-elastomers

that typically operate at -62 to 204°C (-80 to +400°F). Our compounds are certified to major standards.

We are developing and maintaining a Quality Management System that complies with the requirements of ISO 9001 and ISO 14001, required by customers such as Airbus, Boeing, GE, CESSNA, and Bombardier. We implement rigorous standards to the technical, administrative and human factors which significantly improves the quality of our products and enable us to meet customers expectations.

Hutchinson products have been manufactured to the specified demands of the Aerospace and Military industry, being an ITAR Compliance supplier in NAFTA region and we continue to ship to over 200 customers around the world.

## AEROSPACE APPROVED COMPOUNDS

- › Wide range of NFL approved rubber compounds : ACM, AEM, CR, EPDM, FKM, FFKM, FVMQ, HNBR, NBR
- › Mil, AMF, NAS specifications
- › Standards according to DIN, BS, ISO, AS and specific on request
- › Approvals from the main OEMs and manufacturers (BOEING, AIRBUS, BOMBARDIER, SAFRAN, DASSAULT,...)

Approvals	Rubber Family	Compound	Application	Properties
NFL 17261:61D8	FVMQ	8SF56A	Fuel systems	Low temperature / Fuel resistance
NFL 17164:64C8	FKM	7DF710A	Jet engines	High temperature
NFL 17168:68B8	FKM	8DF2418A	HTS oil	High thermal stability
NFL 17241:41B8	EPDM	8EP2187A	Hydraulics	Skydrol resistant
EN 2261	VMQ	SL1013A	Fluid systems	High/low temperature
NFL 17260:60C7	FKM	60C7	Hydraulics	High temperature/ Wear resistance
NFL 17123:23B7	NBR	23B7	Hydraulics	Low temperature resistance
-	FFKM	HT8510	Jet engines	High temperature (+320°C)

- › Other compounds are available on request



## OUR SOLUTIONS



### O-RINGS

- > Wide range of dimensions
- > Large range of compounds:
  - Compatible with kerosene, hydraulic oils, ventilating air...
  - Hardness from 50 to 98 Sh.A
  - Low to high pressures
  - Temperatures from -50 to 250°C (-120 to 480°F)



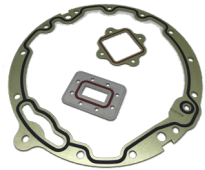
### BONDED SEALS

- > Metal-rubber seals for flange sealing in applications using gas or liquids, up to 2000 bars
- > Metal washer: many materials & anticorrosive surface coatings
- > Rubber: standard and specific compounds



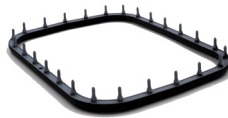
### SHAFT SEALS

- > Bimaterial dynamic seals for high speed shaft
- > Applications: fixed and Rotary wings; rotative shafts, engines and bearings



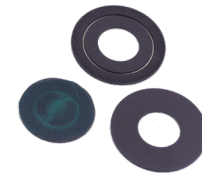
### PLATE SEALS

- > Wide range of dimensions
- > Wide range of rubber compounds
- > Applications: engines, fuel systems, hydraulics, oil systems, gearbox...



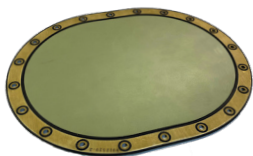
### SPECIAL SEALS

- > Membranes and diaphragms (rubber & fabrics)
- > Cockpit and window seals
- > Inflatable seals - doors...
- > Others on demand



### MAGNET RINGS

- > Magnetic custom made parts
- > Combining elastic properties of rubber and strong rubber/metal adhesion
- > Applications: precision sensors, multiple actuator applications and positioning systems (ABS, trim, flaps,...)



### WING AND BODY ACCESS PANELS

- > Common Panel alloys - aluminum, Stainless Steel, Titanium
- > Qualified compound specification for Military & Commercial applications
- > Specially designed 'void-volume' seal cross-section
- > Seal vulcanized mechanically or chemically bonded

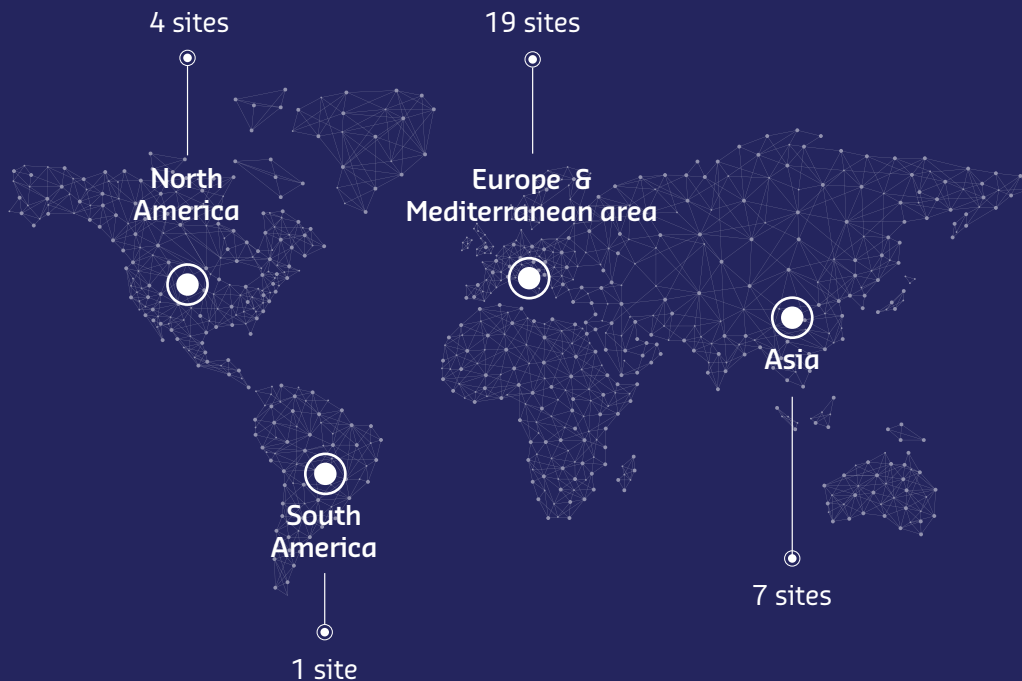


### CUSTOM MOLDED RUBBER PARTS

- > Spacers, isolators, bumpers, wire grommets, and custom configurations
- > Applications: electronic wiring, engine, ECS Systems



## OUR LOCATIONS



## ABOUT HUTCHINSON PRECISION SEALING SYSTEMS

Manufacturers seek highly reliable precision sealing systems that are able to withstand the most demanding environments.

Our systems play an often invisible but vital role, they protect and connect the components that transmit or transform energy in machines, vehicles or aircraft and provide industrial markets with maximum safety and outstanding performance over time.

As a global leader in static and dynamic sealing, Hutchinson designs and manufactures sealing solutions meeting customer requirements while complying with the latest regulations.



[www.hutchinson.com](http://www.hutchinson.com)

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## ABOUT HUTCHINSON



€4,314bn  
turnover



25  
countries



5% invested  
each year in  
research &  
innovation



97 sites  
around  
the world



> 44,000  
employees