

LIFE SUPPORT SYSTEMS



Honeywell

NO STEP

LIFE SUPPORT SYSTEMS



Honeywell is a world leader in the design, integration, and manufacture of Life Support Systems.

Honeywell has over 50 years of experience in the design, development, qualification, delivery, and supply of Life Support Systems (LSS) for aircraft applications. Honeywell has unique in-house full product life cycle capabilities including engineering experts, world class test facilities, production and repair and overhaul capability.

Honeywell has LSS on many different aircraft, including: F-35, T-45, Gripen, F-22, Eurofighter, Tornado, Hawk, PC-21, B-1B, B-2B.

HONEYWELL DEVELOPMENT AND TEST FACILITIES

Honeywell environmental control and life support test facilities include Altitude Chambers able to simulate operation up to 65000 feet with high flow, pressure, and temperature, Centrifuge, Vibration, Shock and Gunfire Testing, Environmental Qualification (Salt Fog, Tropical Exposure, Sand & Dust, Waterproofness, Magnetic Effects, Temp/Alt/Humidity).

Honeywell has full-system integration-test facilities and capabilities from the bleed system through the LSS and onto the breathing mask and anti-g suit. Honeywell has a dedicated rapid-prototyping program and capabilities to enable accelerated development and qualification.

PRODUCTS INCLUDE:

- Life Support Systems
- On Board Oxygen Generator (OBOG)
- Breathing Regulator and Anti-G (BRAG) valves
- Back-up / Emergency Oxygen Supply (BOS/ EOS) and combined BEOS Systems
- Carbon Monoxide Removal Catalyst (COCAT)
- Sensors and Data analytics



Centrifuge



LSS Environmental Chamber



LSS Development Laboratory

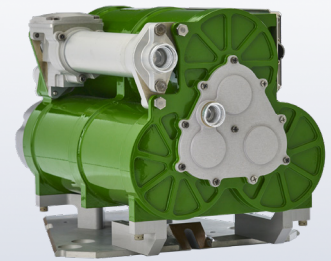
HONEYWELL LIFE SUPPORT PRODUCTS

On Board Oxygen Generator (OBOG)

produces and controls oxygen enriched breathing gas from a conditioned engine bleed supply by means of the principle of Pressure Swing Adsorption (PSA).



2-Bed, Genox II OBOG

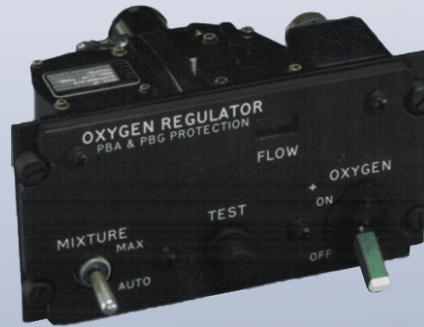


3-Bed, Genox I OBOG

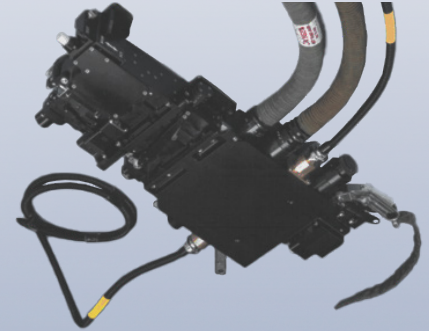
Breathing Regulator and Anti-G (BRAG) valves

supply oxygen enriched breathing gas to the aircrew and inflate the aircrew trousers as required for the flight conditions.

Honeywell has man-mounted, panel-mounted, and seat-mounted breathing regulators, stand-alone anti-G valves (AGV), and combined breathing regulator and anti-g-valves (BRAG).



Panel Mounted Regulator

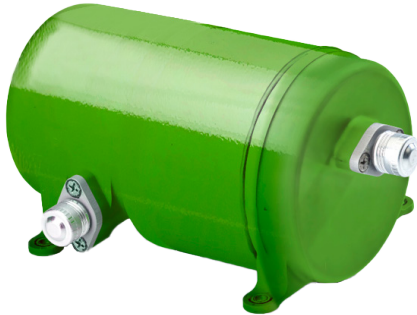


Seat Mounted Regulator





BOS with regulating head



CO removal catalyst



BOS controller

HONEYWELL LIFE SUPPORT PRODUCTS

Back-up / Emergency Oxygen Supply (BOS/EOS) and combined BEOS Systems – high pressure oxygen bottles that provide backup oxygen in the event of loss of ECS air supply to the LSS and/or emergency oxygen in the case of pilot ejection at high altitude.

Carbon Monoxide Removal Catalyst
Ambient temperature CO removal catalyst that removes CO down to a few ppm in the breathing gas supply.

Integrated Controllers and Sensors
Honeywell develops, designs, qualifies, and delivers integrated control systems and sensors that control the pilots' oxygen systems (OBOG, BOS, EOS) and provide diagnostics and prognostics for improved in-service operations. Our systems will also be able to provide advanced data analytics to better understand the pilots' environment.

Sensors include a state-of-the-art oxygen sensor within the Solid State Controller Oxygen Monitor (SSOM) that monitors and controls the oxygen levels produced by the On-Board Oxygen Generation (OBOG) concentrator to meet the desired physiological requirements of the aircrew.

For More Information

aerospace.honeywell.com/en/products/life-support-systems

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FUTURE
IS
WHAT
WE
MAKE IT**

Honeywell