



ANTI-ICE VALVES

THE PERFORMANCE FOR SAFER FLIGHTS

A wide range of types to meet your needs

Collins Aerospace has a long heritage of supplying anti-ice valves, which prevent the build-up of ice in the engine cowl and flight control surfaces.

Our technical solutions include motorized, pneumatically and electro-pneumatically actuated movement of hydraulically controlled valves.

Stainless steel body and graphite seals enable core valve components to operate bleed up to 450° C (842° F). In addition, the inconel body and seals can bleed up to 650° C (1,200° F).

We also offer full system integration with our valves by providing:

- System modeling and simulation
- Vibration under temperature and pressure operative conditions
- Performance testing at system level under full operative conditions
- More than 50 years of actuation experience

By using a production strategy based on Lean principles, we can provide you with low-cost solutions and high on-time delivery performance. Our proprietary solutions, in-house testing capabilities and Lean piece-flow production layout enable us to offer a large product portfolio to meet your requirements.

Over
25
million
flight hours
on a range of
civil platforms



The right valve for the job

Choose from a range of functional architectures for the design of anti-ice valves.

Butterfly valves regulate hot air around the engine bleed system and can shut off when overheating. These valves can be motorized or pneumatically actuated.

In-line poppet valves can be pneumatically or electro-pneumatically actuated. They are designed for the intake and release of air/pressure within the cylinder.

Multi-functional valves can operate in three different ways. They have multiple purposes, such as: shut-off, pressure regulation, engine start bleed and anti-ice.



Butterfly anti-ice valve
(electro-pneumatically actuated)



Butterfly anti-ice valve (motorized)



In-line poppet anti-ice valve
(electro-pneumatically actuated)



In-line poppet anti-ice valve
(pneumatically actuated)



Multi-functional valves



Pressure regulating shut-off valve



Nacelle cooling valve



Engine bleed valve

OTHER ACTUATION SYSTEMS CAPABILITIES

Primary – fixed wing

- Elevator
- Aileron
- Rudder
- Spoiler
- Flaperon

Primary – rotorcraft

- Main rotor actuator
- Tail rotor actuator

THSA/HSTA

- Trimmable horizontal stabilizer actuator

High lift

- Power drive unit
- Wing tip brake
- Flap and slat actuators
- Transmission shafts
- Gearbox
- Electronics and lever

Nacelle actuation

- Thrust reverser actuation system
- Power door opening system

Composites

- Transmission shafts
- Fuel pipes
- Fuel and hydraulic isolators
- Tie rods and struts

Utility actuation

- Weapon bay door drive system
- Wing fold/rotate
- Refuel probe actuator
- Canopy actuator

Missile actuation

- Control actuation system
- Thrust vector actuator

Aftermarket

- 24/7/365 customer support



Anti-Ice Valve Test Rig



Collins Aerospace

Stafford Road, Fordhouses
Wolverhampton, West Midlands
WV10 7EH, United Kingdom
+44 (0) 1902 624644
ActuationEnquiries@collins.com