

Bird-Strike Test Facility

CAPABILITY SHEET - AIRWORTHINESS IMPACT CERTIFICATION - ENGINEERED TO ORDER

THE SYSTEM

WHAT	A bird-strike test facility proves that windshields, intakes, leading edges and blade coupons take a bird impact at flight speed and let the aircraft keep flying.
OUR ROLE	Neometrix builds the pneumatics, launch tube and sabot sections, fixtures, containment and controls, and integrates velocity, imaging and data acquisition.
STATUS	Engineered to order; grounded in delivered high-pressure-air, test-facility and fixture franchises. No specific delivered facility is claimed on this sheet.

THE MACHINE

RESERVOIR + VALVE	A high-pressure air reservoir holds the test's energy and a quick-opening valve releases it in milliseconds - compressed air only, no energetics of any kind.
TUBE + SABOT	The gelatine surrogate rides the launch tube in a sabot carrier; a stripper section arrests the sabot so only the surrogate reaches the article.
TARGET + IMAGING	The real article sits at its angle of incidence in a stiff instrumented fixture, watched by synchronised high-speed cameras, strain gauges and load cells.

THE TEST

WHY IT EXISTS	Birds and aircraft share the sky, so the airworthiness codes demand demonstrated proof that the aircraft can take the strike and continue safe flight.
CLOSING SPEED	The bird is nearly stationary in a real strike - the aircraft's speed does the damage - so the rig launches a standard-mass surrogate at the closing speed.
THE EVIDENCE PACK	Calibrated mass and velocity, synchronised imaging and structural response, assembled into the evidence pack the airworthiness authority accepts.

DISTINCT & HONEST

A CERTIFICATION INSTRUMENT	Fully enclosed, interlocked and permissive-controlled - run as a laboratory instrument whose whole purpose is protecting the people in the aircraft.
OUR FRANCHISE	The reservoir and valve train are our high-pressure-air line; the tube, fixtures and containment our fabrication; cameras and precision instruments bought-in.
ENGAGEMENT	Send the articles, the velocity envelope and the standard to sales@neometrixgroup.com for a clause-by-clause compliance matrix in two working days.

DEFENCE PROGRAMMES DESK

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