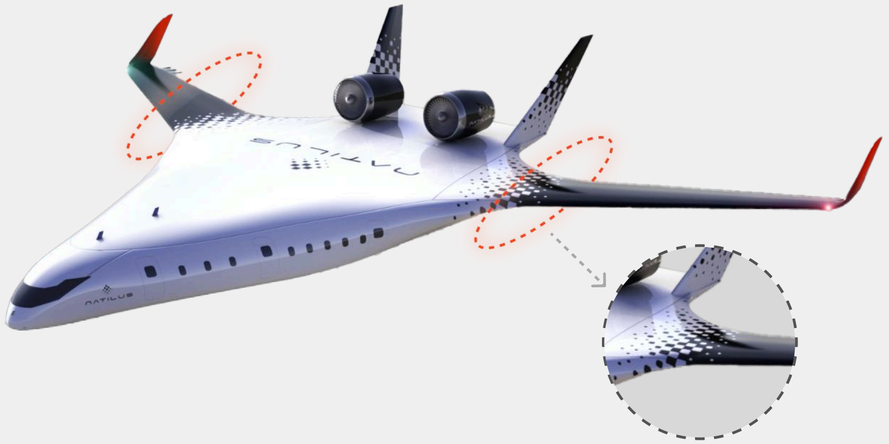
NATILUS

HOW NATILUS BWB AIRCRAFT OUTPERFORM TRADITIONAL COMMERCIAL PLANES IN AERODYNAMIC EFFICIENCY

BLENDED WING BODY



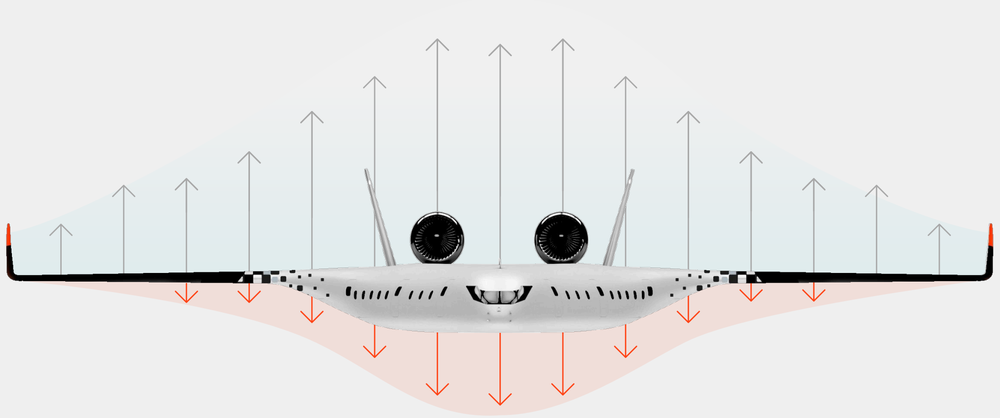
VS

TUBE AND WING

INTEGRATED DESIGN

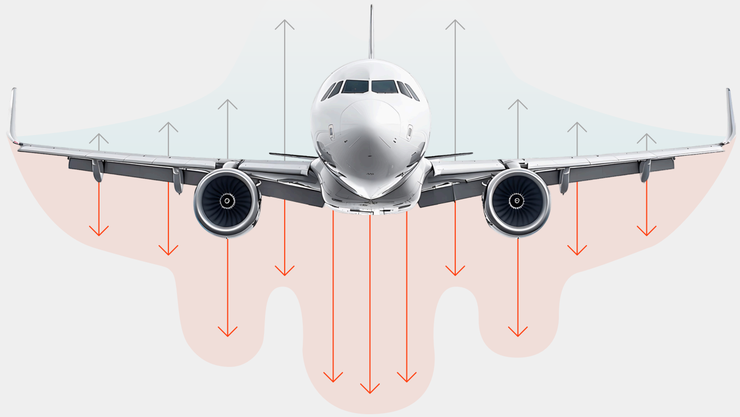
The BWB configuration merges the wings and fuselage into a single lifting surface, which significantly enhances its aerodynamic properties. Unlike conventional aircraft, where the fuselage contributes minimally to lift, the BWB utilizes its entire body to generate lift, resulting in a better lift-to-drag ratio. This design reduces the wetted surface area, which is the area of the aircraft that is in contact with airflow, thereby minimizing drag.

BLENDED WING BODY



VS

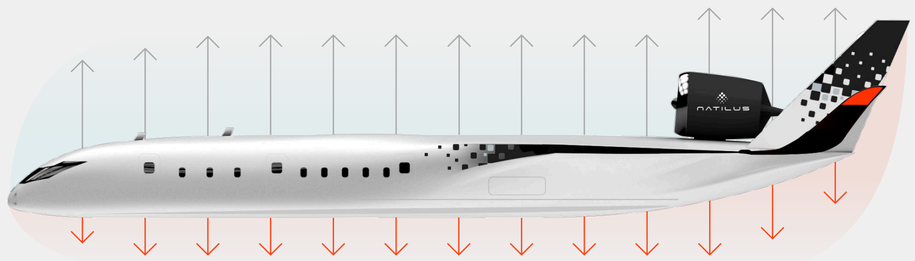
TUBE AND WING



REDUCED DRAG

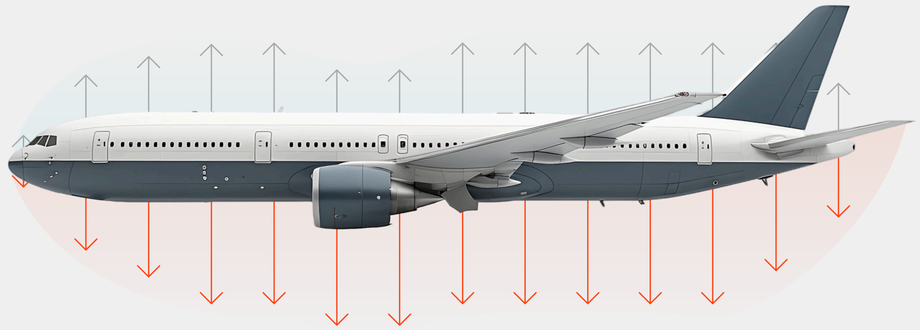
The BWB's shape allows for a smoother airflow over the entire structure, which decreases both parasitic and induced drag. The gradual blending of the wing and body helps maintain boundary layer attachment longer before separation occurs, leading to lower overall drag during flight.

BLENDED WING BODY



VS

TUBE AND WING



20%

HIGHER LIFT
TO DRAG RATIO

ENHANCED LIFT CHARACTERISTICS

BWB designs achieve a 20% higher lift-over-drag ratio during cruise compared to traditional configurations. This means that for the same amount of lift generated, less drag is produced, which translates into lower fuel consumption and increased efficiency.

BLENDED WING BODY

30%

MORE FUEL EFFICIENT

VS

TUBE AND WING

FUEL EFFICIENCY

The combined effects of reduced drag and improved lift characteristics result in significant fuel efficiency improvements. BWB aircraft consume 30% less fuel compared to conventional designs which is essential for meeting modern aviation's environmental and economic challenges.