DUC Hélices Propellers

ISO 9001
BUREAU VERITAS Certification

contact@duc-helices.com - www.duc-helices.com

New propeller

SWIRL-3

HIGH DOUBLE EFFICIENT*

for geared engine

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Description

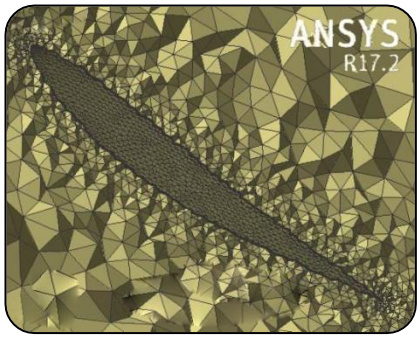
1st propeller fully developed by simulation:

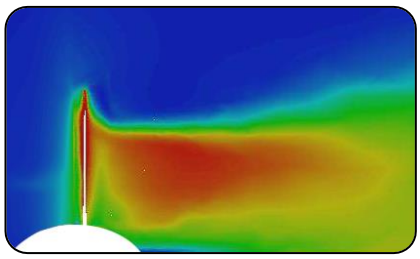
- ✓ Aerodynamic simulation in CFDs under ANSYS Fluent
- ✓ Calculations of Mechanical Resistance & Vibration Behavior of the composite structure under ANSYS Composite PrepPost & Mechanical
- ✓ Simulation of acoustic emission under ANSYS Fluent
- ✓ Validation of simulations by bench tests & flight tests

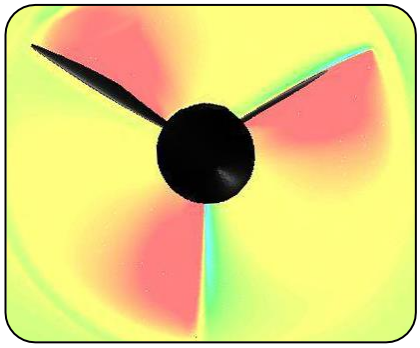
*** No performance compromise!**
Double Efficiency optimization by calculations:
↗ High Take-off Efficiency
↗ High Cruise Efficiency

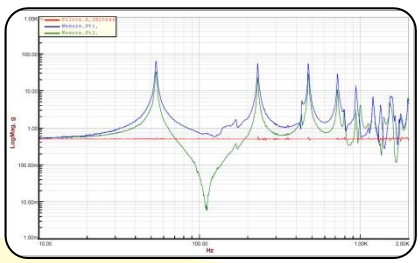
- High "Constant speed" effect & High Calculated Efficiencies
- Low fuel consumption & Low noise

ANSYS®









Characteristics

- Certification LSA (ASTM F2506-10)
- Carbon composite blades and hub
- Low weight & Low inertia – 4.20 kg (9.26lbs) – 3-blade – Right
- Manufacture of high precision – Metal inserts in the carbon hub
- Shielding leading edges in Inconel®
- Diameter Ø64" to Ø75" (Ø1620 to Ø1900mm)

Application

3-axis/LSA; Tractor airplane
Engine 80-125hp: Rotax 912, 912S, 912iS, 914, 915IS, ...

Version

3-blade Inconel SWIRL-3-L, Right
3-blade Inconel SWIRL-3, Right