

**DUC** *Helices* Propellers

ISO 9001  
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Certification



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

New In-Flight Adjustable propeller

# SWIRLBLACK-3

Full performance! \*



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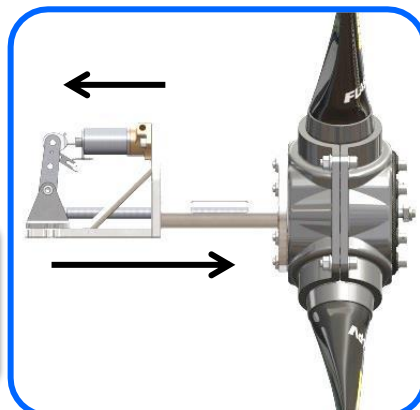
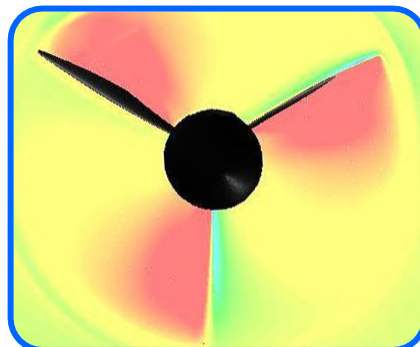
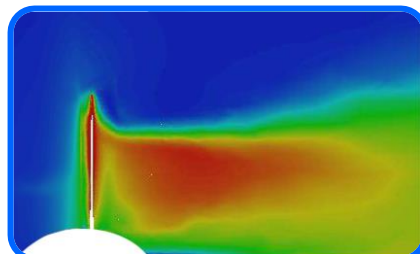
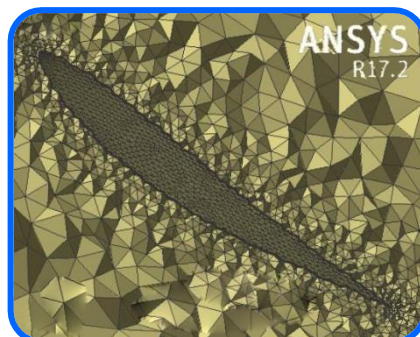
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## New In-Flight Adjustable propeller SWIRLBLACK-3

Full performance! \*



**ANSYS**



### Description

1<sup>st</sup> 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!**

Full performance thanks to Variable Pitch hub:

- Extreme Take-off thrust
- Speed cruise capability unmatched

- ▶ Extremely low propeller weight; Titanium screws
- ▶ Management of the pitch by "Constant speed" box
- ▶ Low consumption & Noise reduction

### Characteristics

- Carbon/Titanium blade & Carbon composite hub
- Low weight & inertia – 6.2 kg (13.7 lbs) – 3-blade – Right
- Pitch angle adjustable, amplitude max. : 23°
- Compatible with hollow shaft engine (Rotax 912→915iS)
- Innovative high-precision manufacturing
- Shielding leading edge in Inconel®
- Diameter from Ø1620 to Ø1900mm (Ø64" to Ø75")

### Version

**BASE** : 3-blade SWIRLBLACK-3 prop. (7.2kg, 15.4lbs)  
included Pitch indicator & Hydraulic setting wheel

6968 €

**CONSTANT SPEED** : Hydraulic pump & Cst. Speed box (+0.74kg, 1.6lbs)

+949 €

