

## DUC FC Windspoon PROPELLER

### CARACTERISTICS

#### PROPELLERS :



This propeller is available in :

- § Two-bladed,
- § Three-bladed.

Diameter :

ø 1727 mm

Weight

- § Two-bladed : 2.380 kg
- § Three-bladed : 3.115 kg

#### HUB :



The hub used is a carbon hub identical to DUC FC WINDSPOON propeller, made out of **FORGED CARBON PROCESS** which makes it possible to obtain exceptional mechanical resistances

The DUC FC propeller with its revolutionary shape called WINDSPOON offers unrivalled performance. The best up to date techniques were used for its design : CAD studies, laser technology, etc.

The results of these developments are :

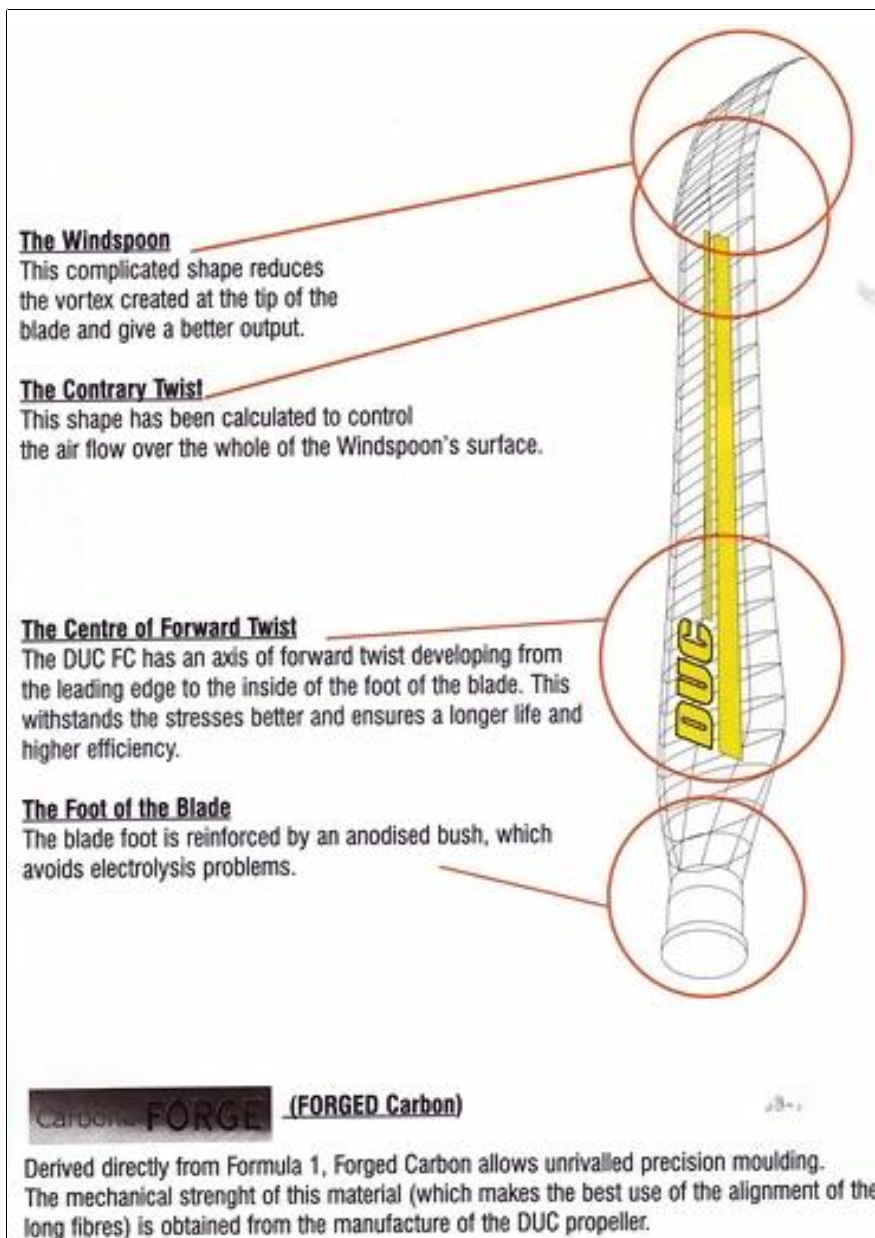
- § Better performance,
- § Lower fuel consumption,
- § Less noise.

## AVANTAGES

The very special profile of the DUC FC blade has been calculated to control the flow of air over the whole surface of the WINDSPOON.

The center of the forward twist results in better reduction of friction and a longer life.

The DUC FC propellers are produced in accordance with the strictest standards of the industry, with equipment specially constructed to ensure the highest quality.





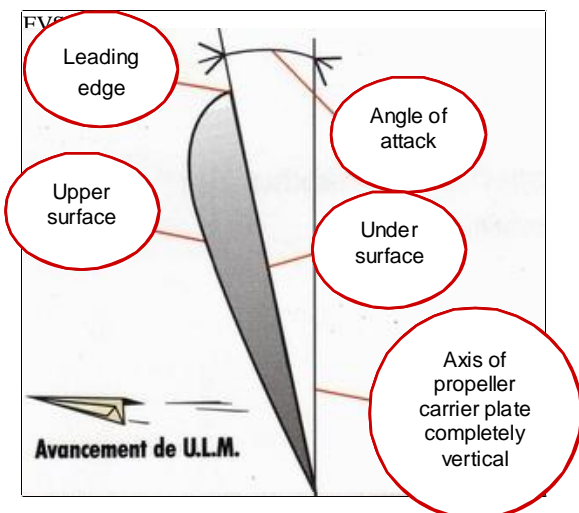
APPLICATIONS

Engine	type	Reducer	Recommended system	Blade diameter
3 TRACTIVE AXES				
ROTAX 912	4 strokes	2.27	Two-bladed DUC FC RIGHT tractive	ø 1727
ROTAX 912 S	4 strokes	2.48	Three-bladed DUC FC RIGHT tractive	ø 1727
ROTAX 503 / 582	4 strokes	2.58 / 2.62 / 3	Two-bladed DUC FC LEFT tractive	ø 1727
ROTAX 503 / 582	2 strokes	3.47 / 4	Three-bladed DUC FCLEFT tractive	ø 1727
3 PUSHER AXES				
ROTAX 912	4 strokes	2.27	Two-bladed DUC FC LEFT propelling	ø 1727
ROTAX 912 S	4 strokes	2.48	Three-bladed DUC FC LEFT propelling	ø 1727
ROTAX 503 / 582	2 strokes	2.58 / 2.62 / 3	Two-bladed DUC FC RIGHT propelling	ø 1727
ROTAX 503 / 582	2 strokes	3.47 / 4	Three-bladed DUC FC RIGHT propelling	ø 1727
PENDULARS				
ROTAX 912	4 strokes	2.27	Three-bladed DUC FC LEFT propelling	ø 1727
ROTAX 912 S	4 strokes	2.48	Three-bladed DUC FC LEFT propelling	ø 1727
ROTAX 503 / 582	2 strokes	2.58 / 2.62 / 3	Two-bladed DUC FC RIGHT propelling	ø 1727
ROTAX 503 / 582	2 strokes	3.47 / 4	Three-bladed DUC FC RIGHT propelling	ø 1727

ADJUSTMENT

ANGLE OF ATTACK :

The values which follow are theoretical values and the number RPM engine in static must be checked.

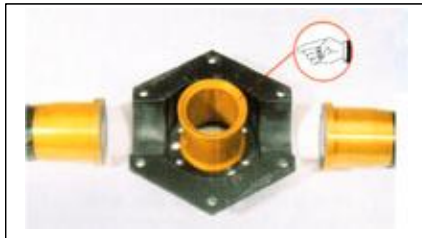


TWO-BLADED		
503	2.58	6°
582	2.58	8°
503	2.62	8°
582	2.62	11°
503	3.00	14°
582	3.00	17°
912	-	14°
912 S	-	15°
THREE-BLADED		
912	-	11°
912 S	-	12°
503	3.47	15°
582	3.47	17°
503	4.00	17°
582	4.00	21°
914	-	14°

## ASSEMBLY AND ADSUTEMENT

Upon receipt of your package, make sure that all the parts are included !

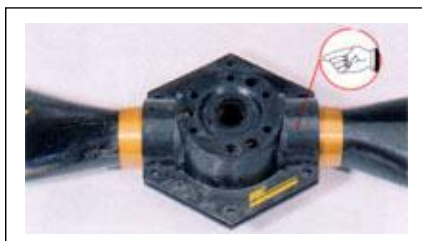
- § Blades
- § 1/2 hub
- § spacer
- § Bolts (short and long)
- § Nuts and washers



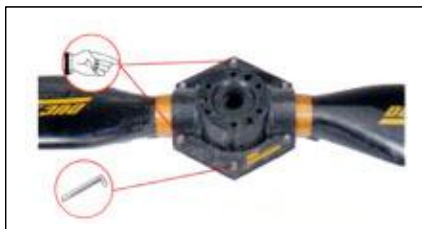
- § Pale one of the half hub on a table.
- § Put the spacer in the center of the half hub.



- § Put the 2 or 3 blades in their slots.
- § Make sure that the DUC logo is facing you.



- § Put the 2<sup>nd</sup> half hub over the assembly.



- § From the back of the hub insert the 6 assembly bolts.
- § Put on the assembly nuts and do up moderately.



- § If assembling the propeller spinner, include the support plate.



§ Be careful you get the washers in the correct order.



§ Put the propeller on the reducer, do up moderately.



§ Position your microlevel so that the propeller carrier plate is completely vertical.

§ Measure this with the leveler on the adjusting tool.



§ Unscrew the assembly bolts enough to enable you to turn each blade easily in its slot.



§ Mettre la première pale à l'horizontale.



§ Take the adjusting tool in your hand, press the lever, put the tool right at the end of the Windspoon.

§ Make sure that the tool is flat and steady against the inside skin of the blade, leading edge uppermost.

§ Turn the wheel with your thumb to adjust the angle of attack.



§ Hold the foot of the blade and turn slowly until the bubble of the tool is completely in the middle and level.

**Tightening**  
**2.5 Kg/m**  
**25 Nm**

The tightening of the bolts on the propeller is carried out in 2 stages :

- § 1<sup>st</sup> tighten the bolts moderately,
- § 2<sup>nd</sup> tighten with a torque spanner.

**Attention**  
Retighten your propeller after 1 hour of use.

<b>Essais</b>	<b>Vérifier que les pales soient correctement orientées, que tous les boulons soient correctement serrés aux valeurs recommandées.</b>	
Les essais sont importants. Il est normal de devoir faire plusieurs réglages successifs en alternant essais au sols et en vols.		
<b>au SOL</b>	<b>en VOL</b>	
Immobiliser votre appareil, freins bloqués, et avec une personne pour assurer qu'il ne puisse bouger. Respecter les recommandations du constructeur concernant la sécurité.  Mettre le moteur en marche, laisser chauffer  <b>GAZ A FOND</b> le régime moteur doit se situer au moins à 85% du régime moteur maximal préconisé en vol par le constructeur.  <b>Si ce n'est pas le cas, AJUSTER LES PALES</b>	Vérifier tous les serrages.  Décoller et vous mettre en vol horizontal stabilisé, vario à zéro.  <b>GAZ A FOND</b> le régime moteur maximal préconisé par le constructeur doit être atteint, <b>MAIS PAS DEPASSE.</b>  <b>Si ce n'est pas le cas, AJUSTER LES PALES</b>	
Pression atmosphérique <input style="width: 50px;" type="text"/>	Tours moteur au sol <input style="width: 50px;" type="text"/>	
Température <input style="width: 50px;" type="text"/>	Tours moteur en vol <input style="width: 50px;" type="text"/>	
Humidité <input style="width: 50px;" type="text"/>	Date <input style="width: 50px;" type="text"/>	

*If you note anomalies of assembly or operation, not undertake flight and contact immediately the DUC-HELICES company.*

*The accessories of assembly and the DUC propeller must be assembled in accordance with the technical notes of the DUC company.*

*The non-observance of these data would release from any responsibility the DUC company.*