

E-Props : the best propeller for the SAVANNAH

The 3-blades E-PROPS DURANDAL 100-M propeller established itself as **the best propeller's choice** for the ultralight Savannah from ICP Aviazione (all versions).



A detailed comparative has been realized on the Savannah equipped with a Rotax 912S engine (100 hp) between the composite 3-blades propeller proposed by ICP and the E-Props 3-blades propeller DURANDAL 100-M (diameters 170 or 175 cm depending on Savannah's versions).

Here are the results.

1- Weight : total saving = 4,5 kg

First, the E-PROPS weights **2,3 kg less** than the 3-blades proposed by ICP. Many advantages of a light propeller are described here :

<http://www.e-props.fr/16/lightpropA.php>

In addition, the Savannah, particularly the recent models, needs a spacer to move the propeller away from the engine fairing. ICP provides an aluminium spacer, length 120 mm.

E-PROPS has imagined an other technical solution. This spacer is replaced by an extended hub, full carbon, very light, simple for assembly, and very economic because offered.

Weight of a ICP aluminium spacer length 120 mm (including screws) = 2,4 kg

Weight of a E-PROPS carbon extended hub length 120 mm (including screws) = 0,4 kg

= **2 kg saved**



More information here : <http://www.e-props.fr/16/spacerA.php>



The saved weight on the complete spinner same diameter (250 mm) is : 0,2 kg.

It is possible to save a total of 4,5 kg in mounting an E-Props instead the standard ICP propeller.

4,5 kg = 6,25 liters fuel SP98 = a distance of 70 km

2- Performances

The E-PROPS propeller allows to reach the best performances with the Savannah, thanks to a strong **ESR effect** (explanations here : http://www.e-props.fr/16/ESR_A.php).

The measured gains (*) with respect to the ICP standard 3-blades propeller are :

- **30-45 m** in take-off distance
- **250 to 460 ft/min** in rate of climb
- between **8 and 18 km/h** in cruise speed
- fuel economy : about **7%** in flying school use

(*) *depending on Savannah versions, E-Props models and pitch adjustments*

Many pilots who have tried an E-Props propeller on their Savannah have been pleasantly surprised by the performances, **very close to the performances of an inflight variable pitch propeller.**

For more data, see page : <http://www.e-props.fr/16/FtestA.php>

3- Strength

The E-PROPS propeller is very strong. The blades are made in a high strength carbon braid, with a leading edge protection in Nanostrength®. More details on fabrication and leading edge protection :

<http://www.e-props.fr/16/fabA.php> / <http://www.e-props.fr/16/blindageA.php>

The hub is also full carbon. With a E-PROPS propeller, it is not possible to have galvanic corrosion.

Centrifugal load tests are realized on each E-PROPS model. Results : safety coefficient = **7,2**. The whole system "carbon hub + blade" can hold **6 times** the maximal load during 1 hour without any damages (EASA CS-P asks only 2 times for certified propellers). At E-PROPS, security is the most important factor.

More data : <http://www.e-props.fr/16/GtestA.php>

4- Vibration free

The E-PROPS propeller do not generate vibrations, thanks to a fine balancing of the whole propeller (blades and hub) => an exceptional comfort for the pilot and the passenger, and a longer lifespan for some aircraft's accessories (reducer, silent-blocks, ...).

5- Significant savings of money

◆ For a new set of "propeller + spacer + spinner and flange" with necessary accessories (Rotax drive lugs, protractor) :

the E-Props costs 939 € less than the propeller proposed by ICP

Prices 2017 – comparative prices in Euros without taxes	Composite 3-blades proposed by ICP	E-PROPS DURANDAL 100 M
3-blades propeller	1 840 €	1.460 €
120 mm spacer	292 €	inclus
Rotax drive lugs	90 €	inclus
protractor	88 €	inclus
complete spinner 250 mm	364 €	275 €
Total =	2 674 €	1 735 €

(2017 publics prices of those new equipments)

◆ An E-Props propeller has a TBO = 2.000 hours. This choice will save about 7% fuel, thanks to the E-Props high efficiency with thin chord. It means about 4.000 € only on fuel, and also some savings on engine accessories (less charged with a very light propeller).

**You are flying with a Savannah ?
Try a E-Props Durandal 100-M propeller, and increase performances, range, comfort and security of your aircraft !**



"TEST YOUR PROPELLER DURING 6 MONTHS" : if you are not satisfied, E-PROPS reimburses you

**Satisfaction Guaranteed
...or your money back**

... because our team is sure of the quality and performances of its propellers !

E-PROPS CUSTOMERS REVIEWS (on Savannah)

P. R. président de l'Aérienne du Choletais, France – oct 2016 :

"Qu'on se le dise, l'Aérienne du Choletais a choisi une hélice E-Props pour son Savannah 912 uls.

Légère, facile à monter, elle permet gain de vitesse et de carburant par rapport à l'hélice proposée par IPC sur notre appareil !"

B.F. Suisse – oct 2016 :

Je suis très content avec mon hélice E Prop Durandal 100 sur ma Savannah -S

E.D. France - août 2015 :

"Voici mon retour d'expérience sur l'E-Props après 175 h avec une Durandal 100 en 170 cm sur Savannah-S vs la DUC Swirl que j'avais avant :

- Vitesse de croisière TAS + 10 à 12 Km/h – Vmax environ 15 Km/h
- Taux de montée + 200 p/min environ sur la bande 3000 à 4000 pieds
- La machine arrache plus rapidement ce qui me permet de supprimer le cran de volet au décollage sur ma piste
- Gain vibratoire à 3200 t
- Et gain de poids très significatif
- Régime au point fixe 5600 t et 5400 en palier

Donc effectivement des gains sur l'ensemble des paramètres, j'en ai été le premier étonné, mais le gain performance sur ma machine est indéniable...

Le SAV et la disponibilité d'E-Props est aussi au top."

E.S. Italie – janvier 2016 :

"I have tested the Durandal-100-M on my Savannah-S. I am very very satisfied because I have better performances that I had with my previous 3blades propeller . Congratulations to all you guys !"

A.C. France – sept 2015 :

"Sur mon Savannah, plus de poussée, moins de conso que la Flash, plus grande résistance aux impacts de cailloux. Je suis très satisfait."

H.G Autriche – avril 2015 :

"Have compare performances of both props on my Savannah. Yours far better. I keep it. Thanks".

