

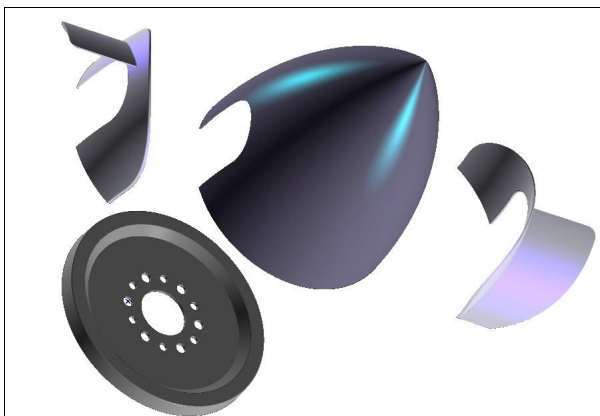
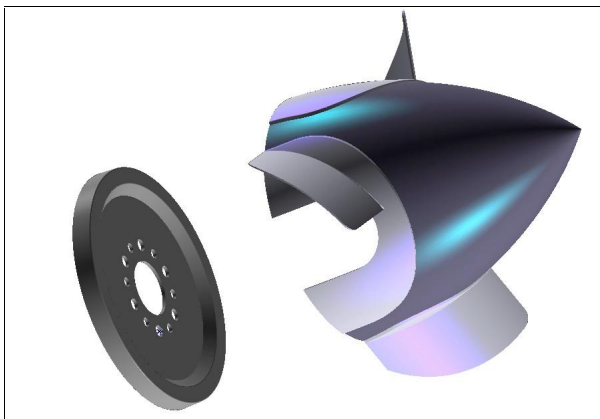
TURBO SPINNER DUC $\varnothing 210$ / 250 mm



Realized entirely out of carbon fibers, the turbo spinner DUC $\varnothing 210$ mm or $\varnothing 250$ mm was studied and developed to support the cooling of the engine.

Very adapted in the case of engines with air cooling, it limits the variations in temperature engine between takeoff to full mode and the flight in cruising, but also in statics or on a taxiway.

THE TURBO SPINNER DUC PRESERVE LIFESPAN OF YOUR ENGINE



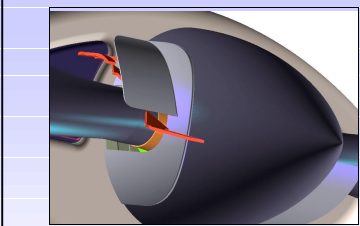
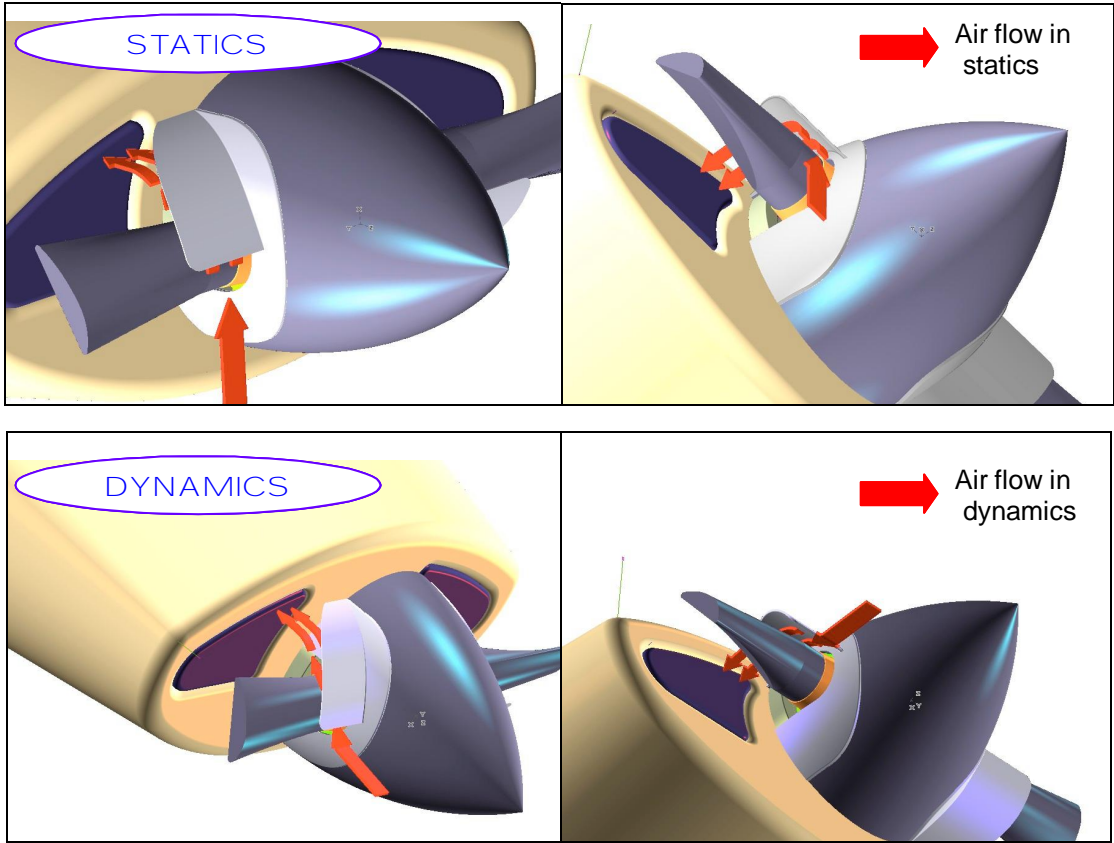
In *two-bladed* or *three-bladed* version, the carbon fibre deflectors were placed around each foot of blade to allow an air admission in the entries of the engine cowling in *statics* and *dynamics*.

These deflectors adapt perfectly on the new DUC spinner $\varnothing 210$ mm or $\varnothing 250$ mm. The mounting plate, out of carbon fibers, is produced with the **FORGED CARBON** process for a higher mechanical resistance

References :

§ turbo spinner DUC two-bladed 210:	01-70-010
§ turbo spinner DUC three-bladed 210:	01-70-011
§ turbo spinner DUC two-bladed 250:	01-70-013
§ turbo spinner DUC three-bladed 250:	01-70-014
§ Two-bladed mounting plate 210:	01-70-003
§ Three-bladed mounting plate 210 :	01-70-004
§ Two-bladed mounting plate 250:	01-70-007
§ Three-bladed mounting plate 250:	01-70-008
§ Turbo deflector 210 :	01-70-009
§ Turbo deflector 250 :	01-70-012

COOLING IN STATICS AND DYNAMICS



The deflector is shifted towards the back compared to the blade axis to support the air entry in dynamics.

The deflectors are laid out with the back of the propeller blades so as not to have increase in air trail. Their geometry was studied to allow a cooling in statics as in dynamics. Their positioning was optimized so as to obtain the best compromise according to the orientation of air flow .

VENTURI EFFECT:

In order to optimize ventilation, the air flow generated by the deflector is optimized thanks to a VENTURI effect of with a variation of bypass sections to the back of the blade.

Some indicative results: TEST ON JABIRU 2200 ENGINE. *

	STANDARD SPINNER		TURBO SPINNER DUC	
	T°C cylinder	T°C oil	T°C cylinder	T°C oil
Montée 800 ft/min	200	95	165	90
A plat 2600 Tr/min	150	90	150	85

This comparative test, the variation in cylinder temperature varies 50°C with 15°C showing to the interest of the turbo spinner DUC in term of driving cooling in flight and on the taxiway, the cylinder temperature did not exceed 100°C.

* test on STORCH aircraft with JABIRU 2200 engine the 20/03/04.