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Beechcraft Duke
Marquis Winglets
60/A60/B60
Performance Specifications

	Stock Baseline P-340	BLR Performance	The BLR Difference
Max. Ramp Wt.	6814	7039	+225
Gross Takeoff Wt.	6775	7000	+225
Min. SE – Vmc	85	72	-13
Min. SE – Flaps 15°	N/A	67	N/A
Stall clean – Vs	82	76	-6
Stall dirty – Vso	76	67	-9
Liftoff – Vlof	94	77	-17
Liftoff – Flaps 15°	N/A	72	N/A
ROC – Twin (fpm)	850	1200	+350
ROC – Single (fpm)	305	370	+65
Short Fld Approach	99	77	-22
TAS @ FL260	205	212	+7

Speed shown in KIAS — Weight shown in pounds

Notes:
1. Company test data and FAA-Approved numbers. See AFMS for certified performance.
2. Stall speeds are certified at new gross weight, forward CG and zero thrust.
3. Vmc is certified at light weight, aft CG and windmilling propeller.
4. Vlof = Vmc + 5 KIAS; Short Field = 1.15 x Vso & Vref = 1.3 x Vso at maximum landing weight.
5. Kit installation time is approximately thirty man-hours on wet tip airplanes, twenty man-hours on late-style dry tip airplanes, plus airspeed dial face change. Winglets not compatible with early style dry wing tips.
6. Kit includes comprehensive installation manual, FAA-Approved Flight Manual Supplement, 2 winglets, hardware, dial faces and all necessary documentation, including Supplemental Type Certificate (STC).
7. BLR gross weight increase vortex generator kit installation is required.
8. Funds quoted in US dollars, plus shipping & handling.

FAA- & CAA-Approved
STC#SA00112SE

Marquis Winglets

Performance

The performance increase of a *Marquis* Winglet-equipped Duke is the direct result of an increase in effective wingspan (aspect ratio) and the associated reductions in lift-induced drag. Adding winglets redistributes and reduces the intensity of the wing tip vortices, allowing the aircraft to safely rotate earlier during the takeoff run, climb to altitude faster during single- and multi-engine operation, and cruise more efficiently at higher altitudes.

Lower actual Vmc means larger safety margins at takeoff with lower liftoff speeds for short field operations. Improved high altitude climb and stability means reduced dutch roll tendencies. Lower stall speeds allow Approach Category A IFR minimums.

Dramatic improvements in flight characteristics and handling qualities with the *Marquis* Winglets installed have made the Duke much more manageable and safer under all conditions. This is especially true where high angles of attack are encountered, such as during takeoff and engine-out operations.

Improvements in lateral stability, Vmc and stall speeds all play a part in making the Duke a safer and more predictable airplane.

Installation

Installing a pair of *Marquis* Winglets on the Duke is the aerodynamic equivalent of adding 3 feet to your wings without the complications and additional cost of replacing your de-ice boots or getting a bigger hangar.

Each winglet has a vertical height of 24 inches, a 22 inch root chord and a cant angle of 15 degrees for an actual span increase of only 5 inches at the extreme tips. This configuration was designed to keep the Duke's overall wingspan under 40 feet.

Factory Authorized installation can be arranged to accommodate your schedule, or the kit can be shipped to you directly. Each kit comes complete with detailed instructions, hardware, special tools and sealant. The installation procedure was designed with the average maintenance shop in mind, and requires only basic hand tools to complete the job in approximately 30 man-hours on 232 gal. models and 20 man-hours on 202 gal. models.