

Aircraft Efficiency

New vs. Old Technology



New technology high efficiency inlet/cowling with boundary layer relief. 2019 design.



Old technology low efficiency inlet/cowling. No boundary layer relief. 1994 design.

In today's business world, company owners strive for maximum efficiency. Striving for maximum efficiency makes sense for airplane owners as well.

It may surprise PC-12 owners to know that the performance of their airplane is being limited by the stock cowling.

Our measurements show the stock cowling's pressure recovery to be about 73% efficient in cruise and 46% efficient in climb. Our new High Efficiency Cowling is about 97% efficient in cruise and 99% efficient in climb. Higher efficiency reduces engine thermal stress allowing better performance.* That means you travel the same miles in less time, reducing operating costs. In icing conditions, our High Efficiency Cowling is more than twice as efficient, improving climb performance and safety.

In addition to more performance, upgrading to a High Efficiency Cowling will allow the engine to start faster and cooler, reducing stress on the battery and engine hot section components.

Isn't it time to stop limiting the performance of your airplane and upgrade to a High Efficiency Cowling?

Your engine will thank you for it!

AMERICAN AVIATION[®]
www.AmericanAviationInc.com
800-423-0476

*Climb and cruise performance increases will vary depending upon aircraft condition, operating procedures, altitude and atmospheric conditions.

American Aviation High Efficiency Ram Air Recovery Cowling/Inlet System for your PC-12/45, PC-12/47, & PC-12/47E

**THE MOST EFFICIENT AIRFLOW DELIVERY SYSTEM
TO YOUR ENGINE!**

Here are the advantages of a more efficient Cowling/Inlet system:

- +1 to 2 PSI more torque at the same ITT.
- +As much as 28 degrees C lower ITT at the same torque.
- +5 to 8 knots more True Airspeed at the same ITT.
- +20% to 35% increased climb rate at altitudes above 15,000 ft.
- +20% to 40% increased climb rate with inertial separator open.
- +Pays for itself in extra miles traveled per flight hour.*
- +New power setting charts provided due to increased efficiency.

*Call or email to receive specific performance data for
your model of PC-12, and see what a Super Efficient
Airflow Delivery System will do for your airplane.*



AMERICAN AVIATION^{INC}

**Advanced Technology
for Proven Aircraft**

*Performance will vary depending upon aircraft condition,
operating procedures, altitude and atmospheric
conditions. *Assuming non discounted dollars.*

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800-423-0476**

Pilatus Owners: WANT YOUR ENGINE TO LAST LONGER? RUN IT COOLER WITHOUT GIVING UP PERFORMANCE!

Turbine engine experts agree that heat is the enemy of all turbine engines. Our new high efficiency cowling will allow you to run the same torque and speed you are running now while reducing ITT by 20 to 25 degrees C!

American Aviation's Speed Cowl™ lets you start cooler and run cooler!



Stock Cowl
FL 185
PSI: 35.7
ITT: 785°

Test aircraft:
Pilatus
PC 12/47E
Same Day
Same Altitude
Same Torque
Same TAS
28° C Lower ITT



Speed Cowl™
FL 185
PSI: 35.7
ITT: 757°

In this example:
Same Altitude
Same Torque
Same TAS
28° C lower ITT
2% Fuel Savings

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What Can You Expect From a High Efficiency Cowling? Ask the Man Who Flies One.

Sir,

Wanted to let you know that we have been keeping track and monitoring the improved performance of our PC-12 NG. We are seeing better performance, and with our movements around North America, we have tested it in Midland, TX, to Northern Canada. We are seeing increased performance at cruise and in the climb. I do think that we are truly getting the value out of the modification.

Regards,

Mark K. McNeill
President
The Stream-Flo Group of Companies



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