



Web: <http://www.rotecengines.com>

ADVISORY LEVEL: Important Information/FAQ

DESCRIPTION: Cooling Your Rotec Radial

ENGINE TYPE: R2800 and R3600

Action:

A Correctly Installed Rotec Radial Will Run Cool.



Max cylinder head temperatures (CHT) = 150°C (302°F)

In all installations it's important to maximise the airflow across the fins of the cylinder.

For completely exposed engine cylinders in which a boot cowl covers the frame and accessories and which stops slightly aft of the collector ring no extra cooling considerations apply. This configuration always provides coolest CHT temperatures.

For an engine with a full cowl that covers the engine cooling is best achieved by a 1" to 1.5" gap at the rear of the cowl allowing air move through the cowl and escape through the gap at the rear.

An engine with a full cowl which is built flush to the fuselage (no gap) requires flow through ventilation which can be achieved by the introduction of vents in the cowl, or a fairly large opening at the bottom of the cowl. In these instances if adequate cooling is not achieved an oil cooling radiator, and or, *baffles between the cylinders should be considered.

In the following examples: The first pic shows a fully exposed engine; second: a cowled engine with a flow through gap between the rear of the cowl and fuse (gap =1.5"); third: Vents being installed with a total of 4 with 2 more on the opposite side of the cowl; fourth: note the scoop at the bottom of the cowl allowing air to flow through and vent outward.



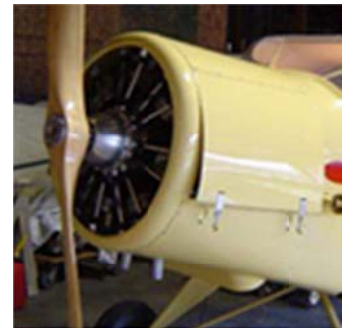
Fully Exposed Engine



Gap between fuse & Cowl



Vents (4off) being installed



Flow through scoop



Baffles between cylinders

* Baffles are secured between each of the cylinders such that the air is diverted through the cooling fins of the cylinders. Though this increases the resistance in flight, it achieves cooling by channelling the bulk of air to flow through/across the fins.

Only technical information released by Rotec should be considered sound. Many third party opinions found on the internet are grossly inaccurate.

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