

CASE STUDY



Ariel Motor Company
selects SPAL for its
carefully crafted
specifications



SPAL fans have featured on Ariel cars since 1999 when they were chosen for its original Atom model and that remains the case for its latest incarnation. But to appreciate the form and function of SPAL fans in a vehicle specification, look no further than the Ariel Nomad.

When you look at an Ariel Nomad it is going to make you smile. A low-slung cage on wheels, with its quirky doorless exo-skeleton, it is built for fun and an immersive, sensory off-roader experience. A light polymer frame weighing in at a mere 670kgs, a 2.4l 4-cylinder engine delivering 235 bhp and a top speed of 125mph, it feels like a much faster car and handles equally well on the road.

But when it comes to thermal management you may well ask – ‘does a car without a solid body actually need engine cooling or can it just rely on air?’

As purveyors of high performance axial fans, SPAL went along to investigate.

The answer of course is ‘yes’, this nippy little drive famously showcased on Top Gear does need engine cooling and indeed Ariel has been fitting SPAL fans to its Nomads since their inception in 2015.

One of the first things to note when encountering a Nomad is that all of its features, such as the suspension, are proudly visible and the same goes for the radiator, complete with SPAL fan which can be glimpsed tucked inside the nose cone; a view described by Andy Clift, National Aftermarket Sales Manager for SPAL as follows: “Imagine looking down the mouth of a shark and seeing a SPAL fan for teeth.”

He probed Tom Siebert, General Manager at Ariel Motor Company about the significance of that design:

How important is the nose cone and the siting of the cooling fans to the overall performance of the vehicle?

Aerodynamics, the frontal area of a vehicle and the componentry within, play a huge part in keeping engine temperatures low. The enemy of outright engine power is heat, so component choice – especially with regard to cooling fans - is critical in this area. The light weight and high performance of SPAL fans make them an obvious choice for this application.

What are the other considerations for equipping a car for off-road driving?

Off-road driving is very different to ‘normal’ on-road driving as vehicles speeds and air flow over the radiator are much lower, hence the necessity for the best cooling fan possible.

Any exposed components at the front of an off-road car also need to be very rugged, as debris, stones etc are constantly battering the vehicle.

As well as being lightweight and high performance, SPAL products are also extremely rugged and long lasting, so a perfect fit for the front of our Nomad.



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You take your vehicle specifications very seriously, why did SPAL products stand out and what would you say were their specific benefits?

As with Ariel vehicles, SPAL products are lightweight, high performance, rugged, tried and tested and available at the right price point for a production vehicle - SPAL products meet our requirements perfectly.



“100%, we will continue to use SPAL products throughout our vehicle range now and in the future.”

How do SPAL fans compare with others in terms of actual performance?

SPAL fans are the market leader for a good reason.

SPAL fans are also featured on the new concept HIPERCAR (High Performance Carbon Reduction).

What are the specific challenges of developing an electric battery powered vehicle and the thermal management thereof?

BEV's generate a huge amount of heat, especially in high performance applications like the Ariel HIPERCAR. Managed thermal demand is a huge part of any EV program, but with a vehicle with this much performance the challenges are enormous.

Did you choose SPAL fans based on performance of/satisfaction with original product?

Absolutely, we have been using SPAL fans since 1999 so they were the obvious choice for our latest project.

How important was the technical expertise and support of SPAL in the project?

SPAL has always given us enormously helpful technical and sales support, there is always a product which meets our requirements and the SPAL technical team are adept at finding it!

For your next project would you recommend SPAL?

100%, we will continue to use SPAL products throughout our vehicle range now and in the future.



For quality, reliability and outstanding performance,
always fit genuine SPAL parts.

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