

Why are the mounts in Albert Motorsport Porsche rear spoilers laminated in a staggered (offset) configuration?

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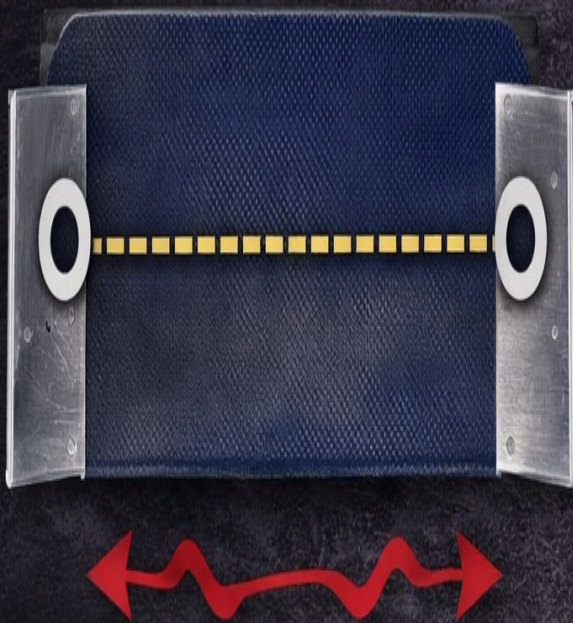
Dear friends,

A customer ordered a 997 RSR spoiler from us and is now complaining that the spacing of the mounts is not 90 cm at the front and rear as requested, but approximately 87 cm at the front and 92 cm at the rear—even though he expected a uniform 90 cm spacing.

This must surely be a manufacturing flaw at Albert Motorsport, or why was it designed this way?

Here is the technical explanation:

✗ PARALLEL MOUNTING POINTS (Problem)



both mounts have **same**
leverage

➡ Spoiler can move laterally
as a whole, 'pivot' like a ruler

✓ STAGGERED MOUNTING POINTS (Solution)



different points
of leverage

➡ **Movement blocked /**
damped

Dear friends,

When looking at the rear spoiler shown, it becomes apparent that the distances between the mounting points at the front and rear are not identical.

At first glance, this may appear to be an inaccuracy, but in reality, it is an intentional and technically necessary design feature.



As can be clearly seen in the images, these are not simple brackets, but aluminum elements that are directly laminated into the carbon spoiler blade. These inserts are responsible for transferring all loads into the component. The spoiler itself is therefore not a rigid part, but a load-bearing, elastically working structural element.

During driving, not only downforce but also lateral, alternating aerodynamic forces act on the spoiler. These forces are distributed across the entire surface and can induce the whole wing to move laterally in parallel—that is, to oscillate as a unit from left to right.

If the laminated mounting points on the left and right were arranged perfectly parallel and symmetrical, both mounts would engage geometrically in the same way. This would create a free direction of movement in which the spoiler could oscillate laterally under load. These oscillations would be excited by aerodynamic forces and could increase progressively over time.

To prevent exactly this behavior, the mounting points are deliberately installed in a slightly offset (skewed) arrangement within the spoiler blade. This means the positions are not perfectly parallel to each other, but slightly staggered—one side positioned a bit further inward, the other correspondingly further outward.

Due to this offset arrangement, the mounts no longer engage identically. Any lateral movement of the spoiler immediately leads to uneven load distribution within the structure, thereby disturbing and damping the motion. A uniform oscillation is thus structurally prevented.

In this context, it is important to understand that the distances measured at the leading or trailing edge are not the critical dimensions. The decisive factor is exclusively the spacing of the mounting points in the central area of the spoiler. This is where the nominal dimension is precisely maintained.

The differing measurements at the front and rear are an inevitable result of the skewed configuration and are technically essential.

This design ensures that the spoiler remains stable even at high speeds and prevents harmful vibrations. Without this structural measure, the mounts would, over time, begin to work within the laminate due to constant load changes, or structural damage would inevitably occur.

In summary, this is not a deviation, but a deliberate and engineered design feature that serves the stability, durability, and functionality of the spoiler.

Key takeaway: The critical dimension is the center-to-center spacing, and this has been implemented correctly.

If you have any further questions, I'll be happy to assist!