

AERO 101

Greetings! Welcome to the fifteenth segment of Aero101. Sorry for not posting a segment last week, we were quite busy with a few designs and talks with different manufacturers! This week, we will be covering another rear endplate device: slats.

You must be thinking: how are these different from slots? Well, they have a hugely different purpose. Slats are found on the trailing edge of the rear endplate of a Formula1 car. They are most commonly located at the base of the endplate but sometimes can extend all the way up to the top, depending on the team. Each slat is placed at an angle, with the leading edge inboard of the endplate, so that they fan outwards. The purpose of slats is to straighten turbulent air coming off of the tires as it passes over the diffuser. As the air is straightened, the flow is sped up, increasing the efficiency of the diffuser. The slats also help with the outwash of the wing. Outwash (and upwash) help expand the low pressure of the wing so that it works better. For this reason, adding a gurney to the trailing edge of a rear endplate is beneficial.



Source: thewptformula.com