

CFD FLOW SIMULATION

**DOWNFORCE NAKED FRONTAL SPOILER**

REF.22079

AERODYNAMIC TEST

**YAMAHA MT-09**

2024 -

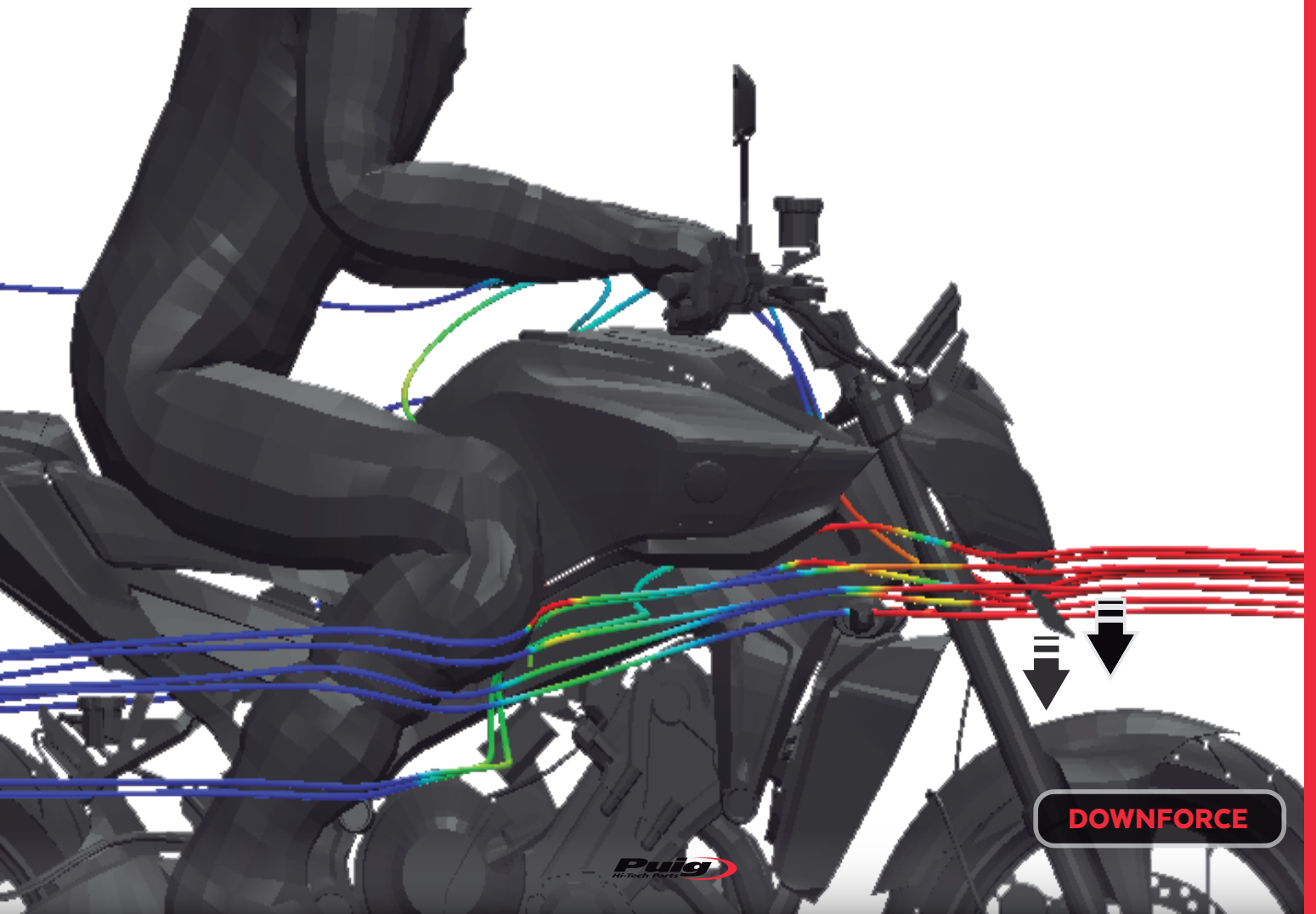


SPOILER'S DOWNFORCE

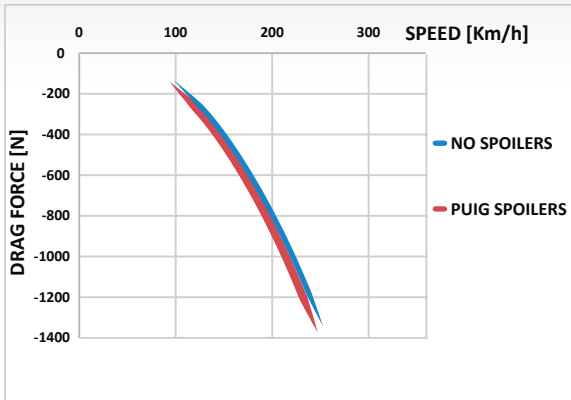


Downforce-Speed Chart:

On this chart we can see the downforce that the spoilers generate.



**DRAG FORCE**



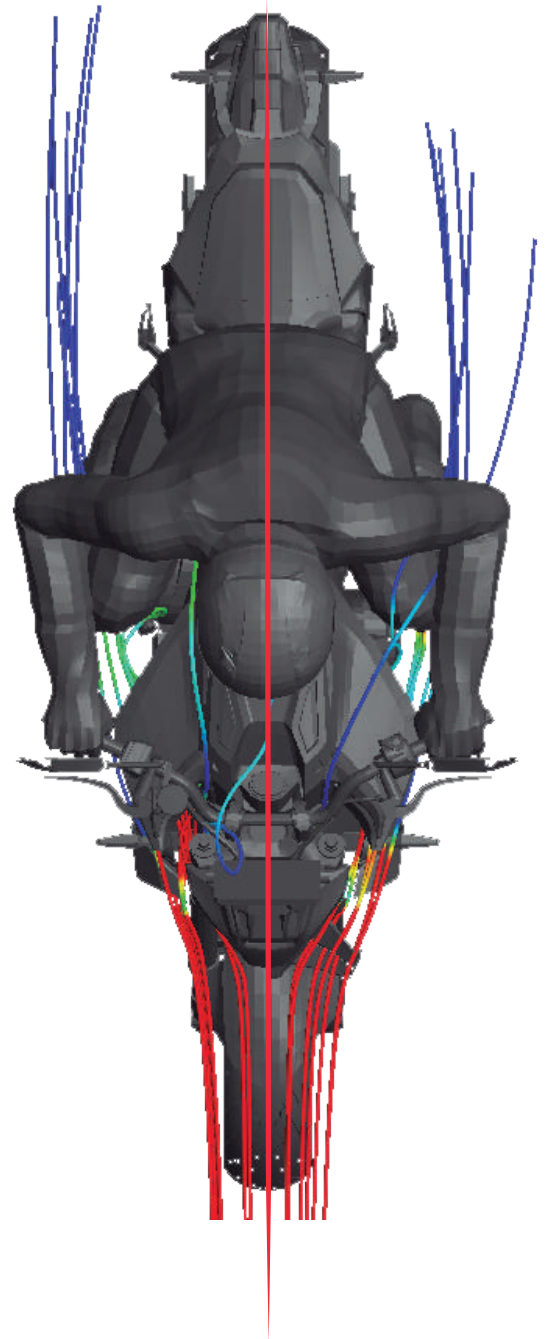
Drag force - Speed Chart:

On this chart we can see the force that our bike has to overcome to advance depending on the speed we are travelling at. As we can observe this force is practically the same with the *Puig* Downforce Naked Frontal Spoiler. So we will gain downforce without affecting bike speed.



**WITHOUT SPOILER**

**PUIG SPOILER**



Due to its angles and frontal surface, it creates an overpressure on the top of the spoiler. The turbulence create below, generates a difference of pressure between the upper and lower part of the spoiler. Which ultimately generates the aerodynamic downforce.