

/// Race Louvers

Professional R&D - Wind Tunnel Tested - Track Proven

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GT350 Aerodyne Wind Tunnel Hood & Fender Louver Data

Welcome to Race Louvers. Here we had the opportunity to test the GT350 in the Aerodyne Wind Tunnel. We took a look at our RT 3 piece GT4 style hood louver kit as compared to a stock hood with no vent as well our RSF curved over the tire fender louvers with several inner fender liner configurations. The rolling tires and boundary layer control system on the floor gave us extremely accurate data and was later compared to our GT350 A2 Wind Tunnel Data and GT350 CFD Data.

Test car prep level:

- Mustang GT350 with the AJ Hartman Aero package
- It should be noted that the oem oil coolers are located in the front corners of the car

Hood vents tested:

- Race Louvers GT4 style louvers

Fender vents tested:

- Race Louvers RSF curved over the tire fender louvers
- Various inner fender liner configurations

Other things tested:

- Rolling tires v non rolling
- Fender venting with rolling tires v non rolling
- Direct comparison of CFD v A2 Wind Tunnel v Aerodyne Wind Tunnel
- Yaw, forward and aft pitch, ride height changes, rake changes, 80, 100 and 120mph wind speed, etc

Test procedure:

- Simply swap out hood vents with no other changes
- Simply swap out fender vents with no other changes
- Simply swap inner fender liner configurations with no other changes

Conclusions:

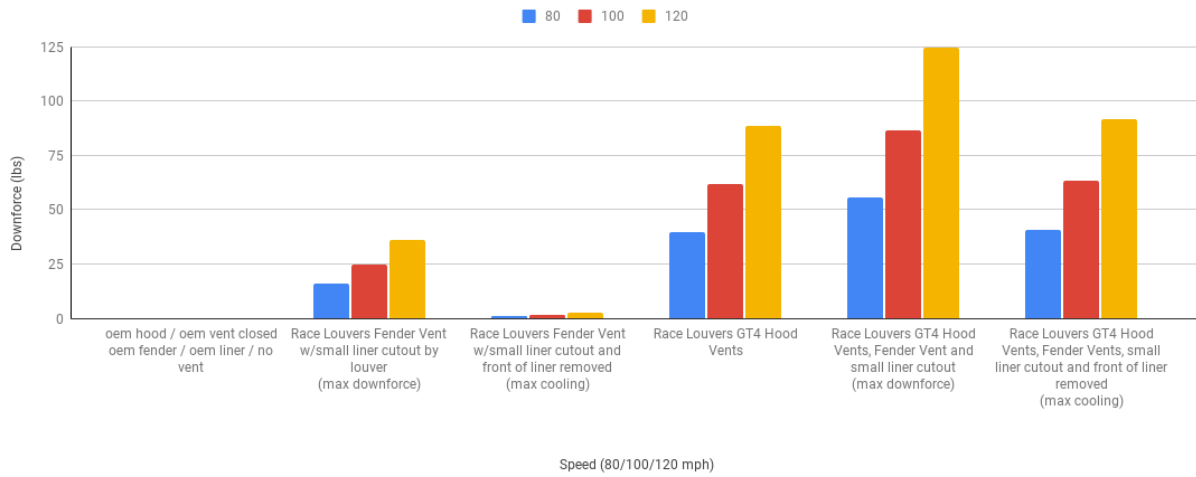
- The hood louvers were worth about 24% of the cars total front downforce
- The fender louvers were worth about 9% of the cars total front downforce
- Both the hood louvers and fender louvers improved heat exchanger cooling capacity

Video: <https://www.youtube.com/watch?v=Ao0O6S3ncYk&t=1s>

Aerodyne Wind Tunnel Front Downforce

Mustang GT350. OE Grill Opening.

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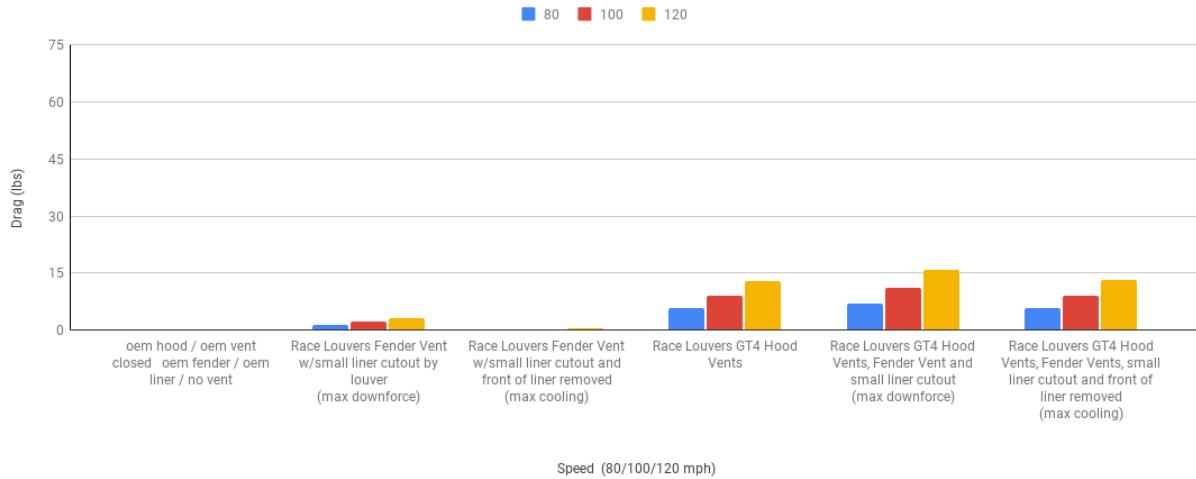


Front Downforce.
Fender only, hood only, then a combination.

Aerodyne Wind Tunnel Drag

Mustang GT350. OE Grill Opening.

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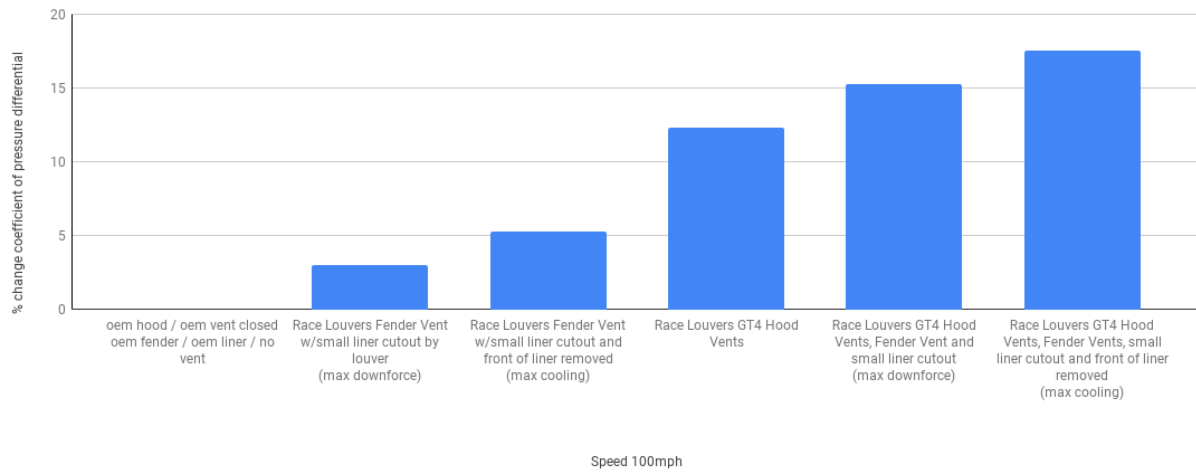
Drag in lbs.

It should be noted that this car still has the oem fan with shroud which has been shown to be a restriction to airflow and causes drag. Use of a fan without a shroud would cool better and cut the drag in half. See here: <https://racelouvers.com/content/Race-Louvers-Fan-Shroud-Wind-Tunnel-Data.pdf>

Aerodyne Wind Tunnel Radiator Differential Pressure Percent Increase (Cooling Air Flow Increase)

Mustang GT350. OE Grill Opening.

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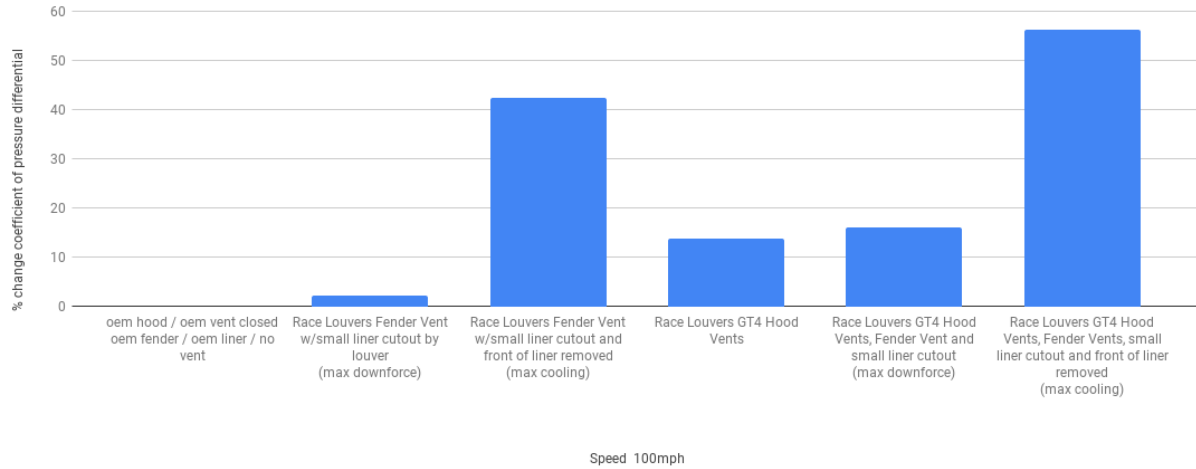


Radiator Cooling.

Aerodyne Wind Tunnel Oil Cooler Differential Pressure Percent Increase (Cooling Air Flow Increase)

Mustang GT350. OE Grill Opening.

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Oil Cooler Cooling.

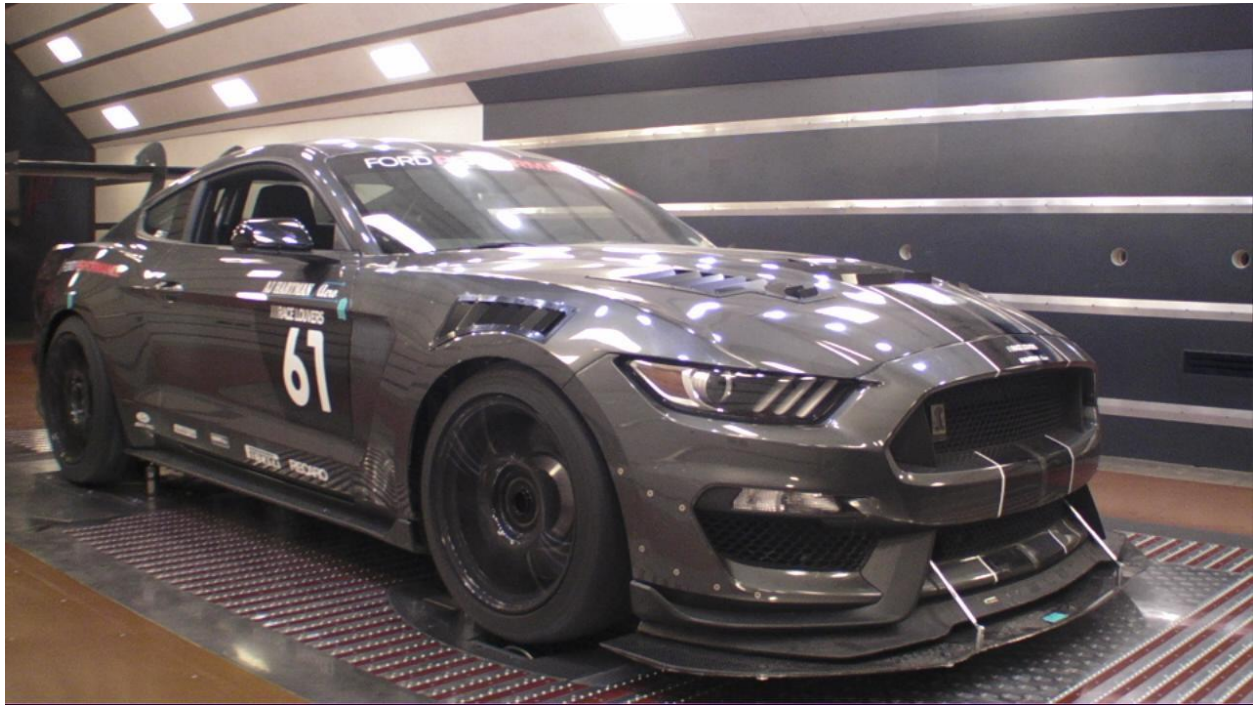
It should be noted the oem oil coolers are located in the LF and RF corners of the car so fender venting has a significant effect on side mount coolers.



No Hood or Fender Louvers



Fender Louvers



Hood & Fender Louvers



