

# */// Race Louvers*

Professional R&D - Wind Tunnel Tested - Track Proven

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1998 Mustang Wind Tunnel Test Data

Welcome to Race Louvers. Here we tested our usual 8 hood vents from our BMW and Audi testing on a 1998 Mustang. The main reason we like to run the same vents on different cars is so we can demonstrate that while hood vent performance may vary slightly car to car the difference in performance from vent design to vent design remains the same, aka our kits still perform the best no matter the car.

It should be noted that prior to the wind tunnel we consulted with the car owner to optimize every aspect of the cars aero devices. This led to a very well balanced car netting 400lbs of total downforce at 100mph with 46% front and 54% rear aero balance right out of the gate. A few tweaks and the car was 410lbs of total downforce at 100mph with 54% front / 46% rear downforce and a lift to drag ratio of 1.47 which is excellent for a car with basic aero components. Most cars we've seen are always front aero challenged so check out our consulting services to get your car dialed in.

#### Test car prep level:

- 1998 Mustang GT with common aero mods
- Flat splitter, air dam, grill opening ducted to radiator core, aluminum radiator oem location, no fan back of rad open to engine bay, hood & fender vents, canards and a wing.

#### Hood vents tested:

- stock hood no vents
- mesh / open hole style vent
- stamped hood rod style louvers
- recessed louvers
- raised louvers
- drift style louvers
- Race Louvers RS Street Trim louvers
- Race Louvers RT Track Trim louvers
- Race Louvers RX Extreme Trim louvers

#### Test procedure:

- Simply swap out hood vents with no other changes for back to back testing

#### Conclusions:

- Race Louvers, still the best cooling and front downforce gains no matter the car
- It should be noted that optimizing the air side of the cooling system actually resulted in a reduction of drag while improving the cooling airflow
- 70# DF, 7% cooling gain and a drag reduction from a set of our hood extractors & consulting !!!

Video here: <https://www.youtube.com/watch?v=7Vr98Y1zrcc>

### Wind Tunnel Radiator Differential Pressure Percent Increase (Air Flow Increase)

1998 Mustang GT, 24"x14" Center Vent/Extractor Comparison. OE Grill Opening.

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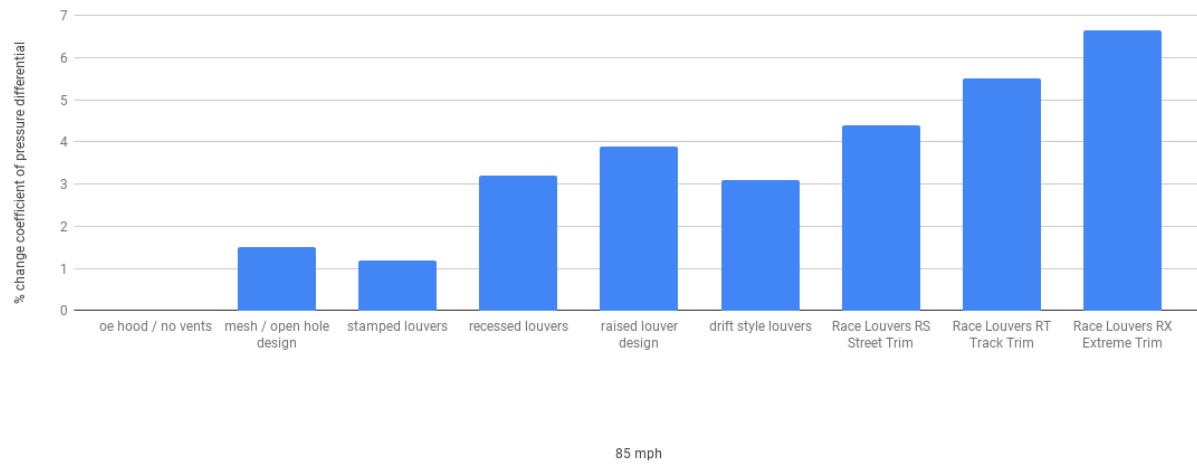


Figure 1 - Cooling

This is the percent change in coefficient of pressure differential between the front of the radiator and the rear of the radiator. Increased pressure differential across the radiator equates to increased airflow thru the radiator netting improved cooling.

### Wind Tunnel Front Downforce

1998 Mustang GT, 24"x14" Center Vent/Extractor Comparison. OE Grill Opening.

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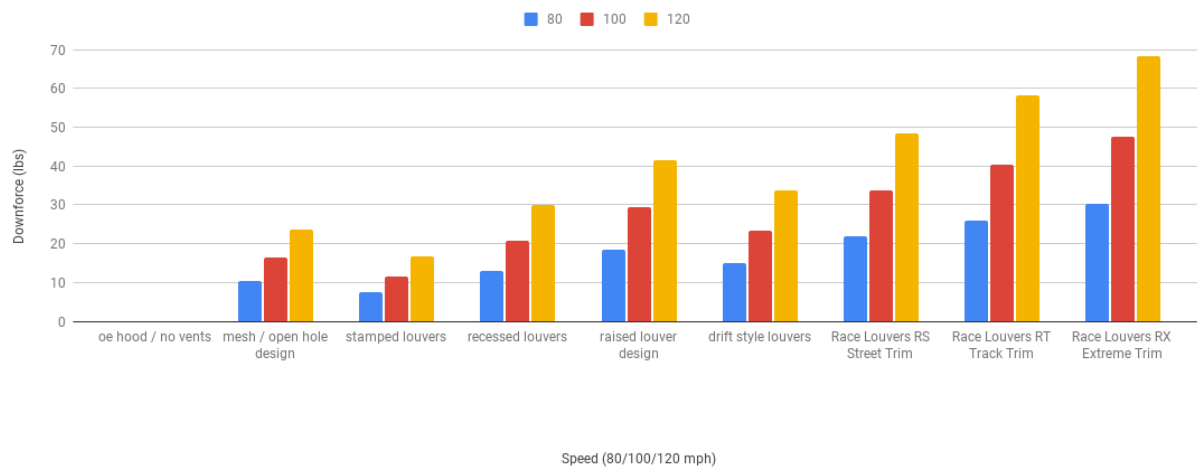


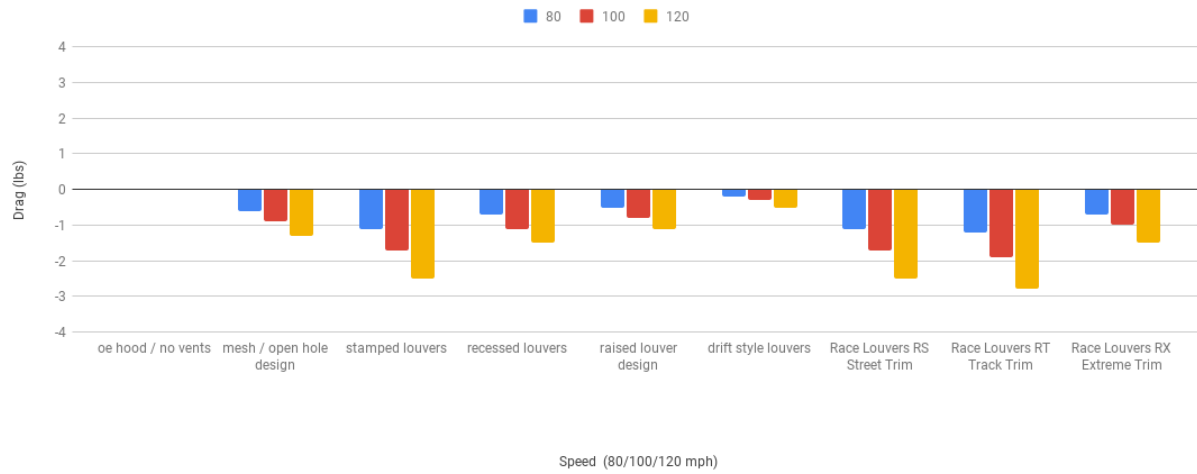
Figure 2 - Front Downforce

Front downforce changes based on speed. Front downforce nets front grip and for most cars we've seen improves the aero balance.

**Wind Tunnel Drag**

1998 Mustang GT, Single 24"x14" Center Vent/Extractor Comparison. OE Grill Opening.

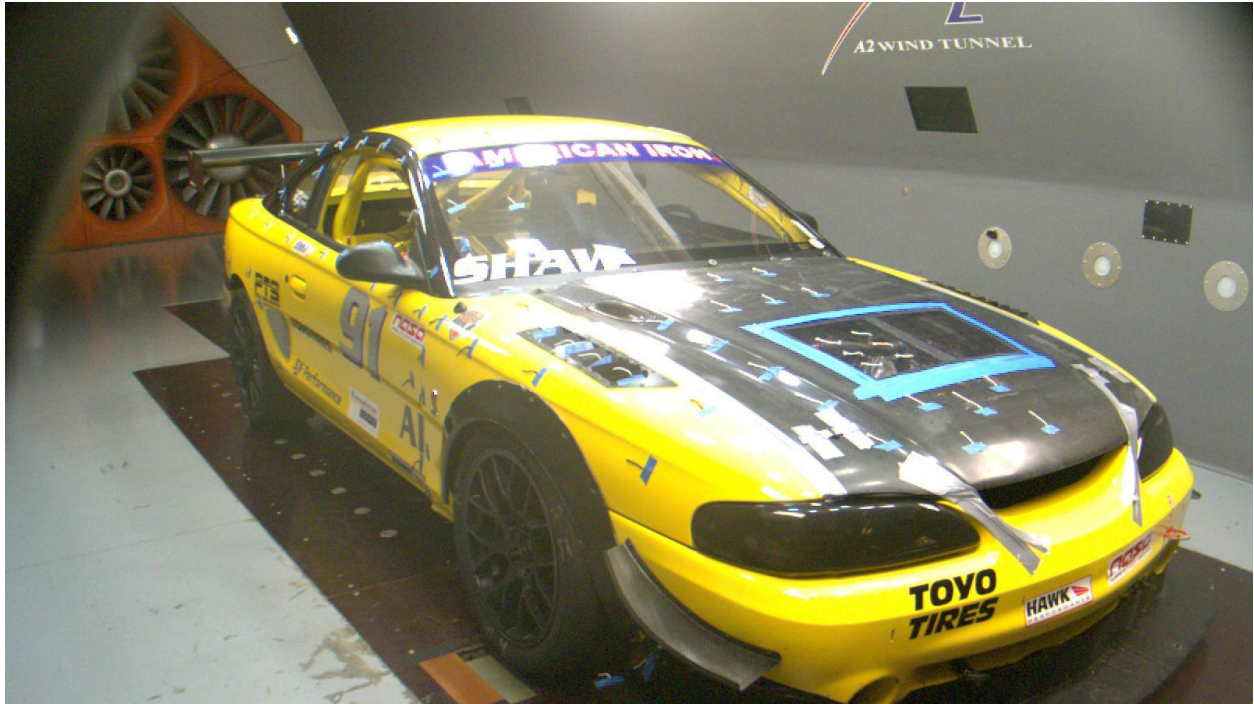
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**Figure 3 - Drag**

Drag changes based on speed. As noted above we consulted with the customer prior to the wind tunnel to optimize the aero components and the results show. Normally there is a slight drag increase with hood venting but good aero practices can allow for improved DF and cooling with little to no drag penalty.

**Baseline (no hood vents)**





Mesh / Open Hole Vent



Stamped Hotrod Style Louvers





Recessed Louvers



Raised Louver Design





Drift Style Louvers



Race Louvers RS Street Trim Louvers





Race Louvers RT Track Trim Louvers



Race Louvers RX Extreme Trim Louvers