/// Race Louvers

Professional R&D - Wind Tunnel Tested - Track Proven

info@racelouvers.com - www.racelouvers.com

908-447-5788

Zero Speed Cooling - Offroad

Introduction

Welcome to Race Louvers. What is zero speed cooling? It is a feature we built into all of our Race Louvers where the louver is as open as possible with the least resistance to vertical airflow without affecting the main cooling at highway speeds. This nets maximum cooling at little to no speed crawling rocks or cruising the trails.

Most people when considering hood vents or heat extractor hoods only think of cooling gains at speed on the highway but dont consider how they cool at a standstill. We know from wind tunnel testing not all hood vents and extractors are created equal. This test is to show the cooling rate of various hood vent designs once the truck is stopped and shut off. We know oem hoods without venting traps the hot air inside the engine bay and causes heat soak as well as long cool down times, we know adding hood vents will help, here's how much.

The Plan

1. Take all of Our wind tunnel test vents and extractors

Race Louvers LLC
908-447-5788
info@racelouvers.com

2. Put them on this Jeep

Race Louvers LLC
908-447-5788
info@racelouvers.com

3. Then document radiator coolant temps, starter air temps and upper firewall air temps 15 minutes after shut down to see cooling rates at a stand still.

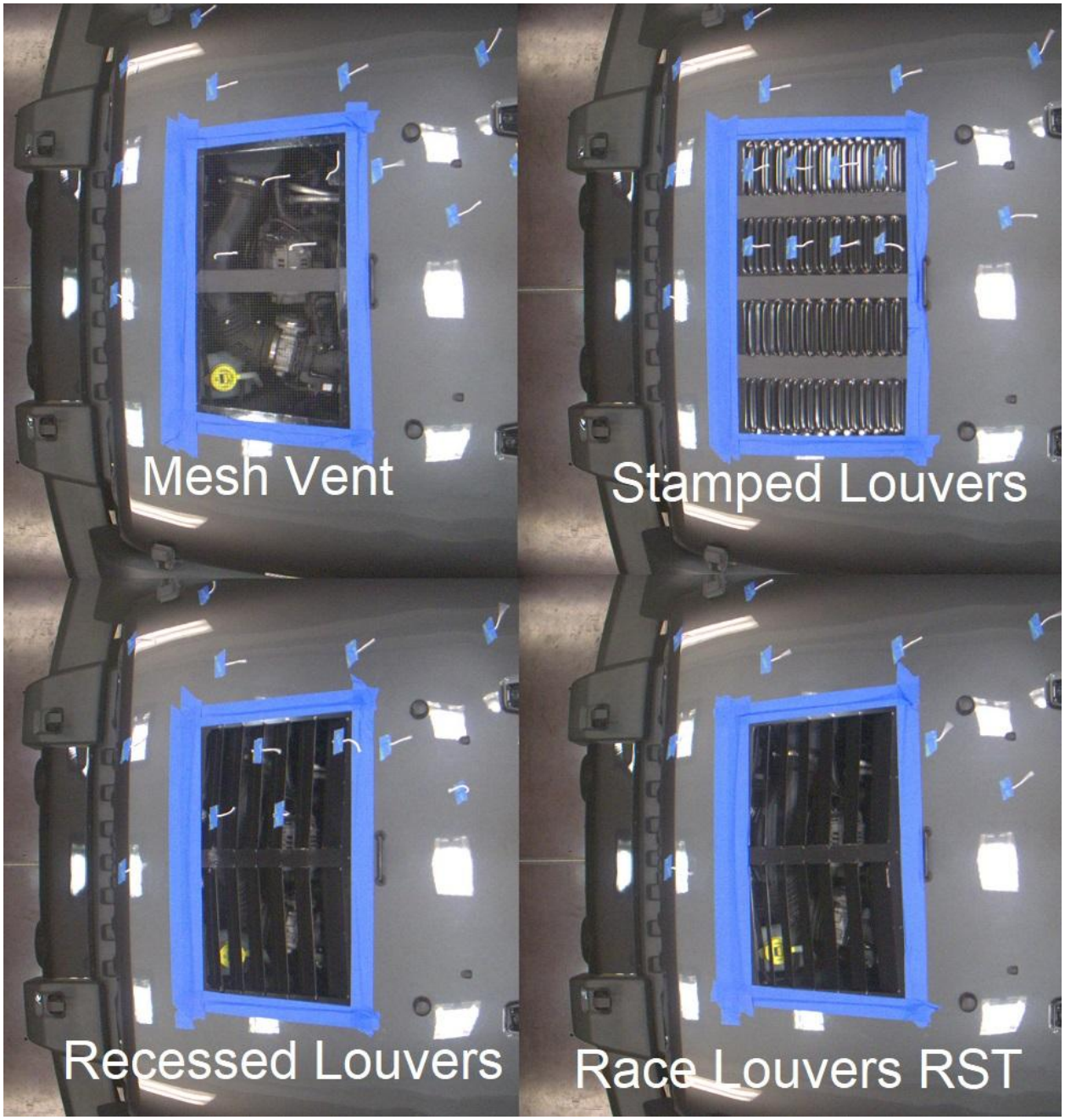
Procedure

1. Install test vent
2. Operate Jeep at 1500 rpm high idle to heat up
3. Shut down once radiator coolant temps reach 200F
4. Wait 15 minutes
5. Document radiator coolant, starter air and upper firewall air temps to establish cooling rate
6. Repeat for other test vents

   * Note, radiator electric fan assembly was unplugged so as to not affect temperatures

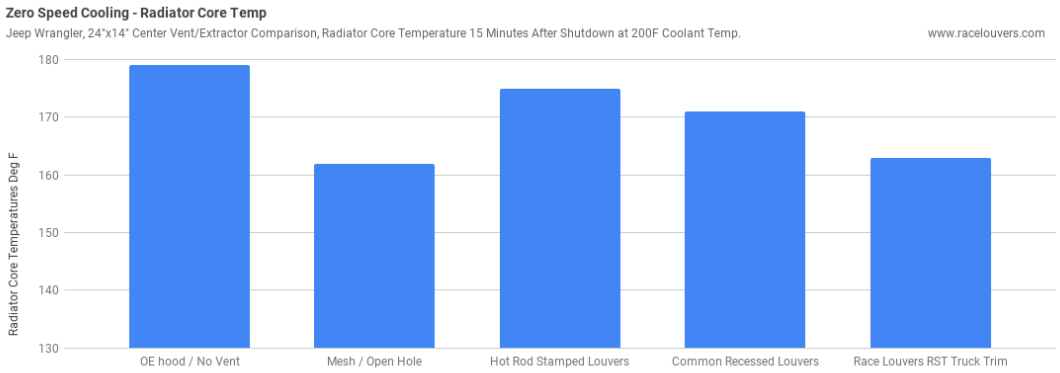
Race Louvers LLC
908-447-5788
info@racelouvers.com

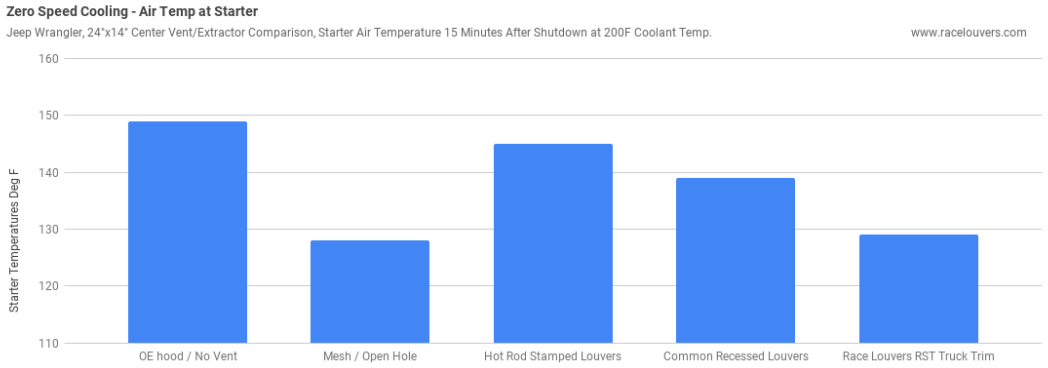
Wind Tunnel Vent Top Views

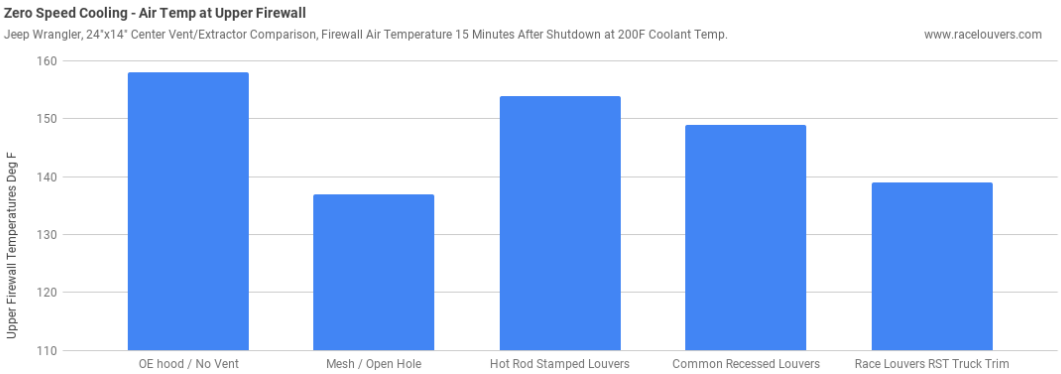


Race Louvers LLC
908-447-5788
info@racelouvers.com

Zero Speed Cooling Data

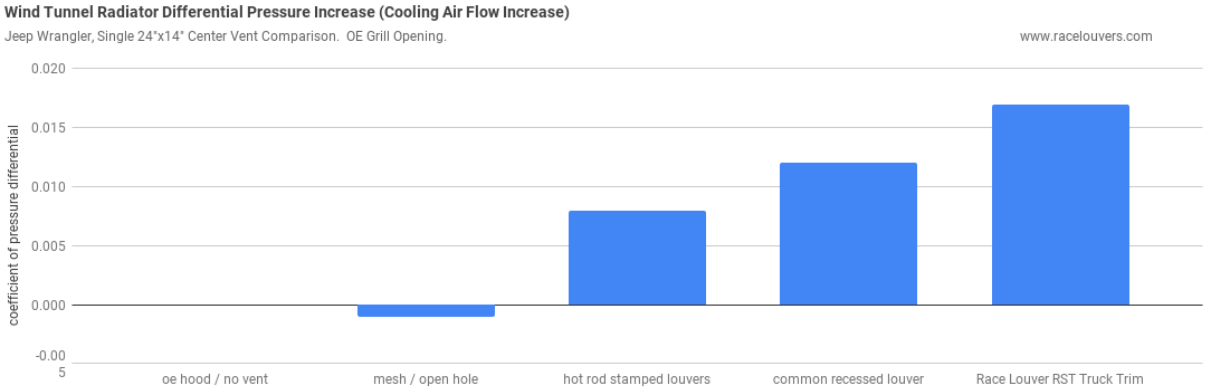






Race Louvers LLC
908-447-5788
info@racelouvers.com

Wind Tunnel Cooling Data



Data Overview

Zero speed cooling data above shows most vent designs on the market especially stamped louvers are fairly restrictive to vertical heat rise while Our RST louver and the mesh/open hole vent have the least restriction netting the best cooling at a stand still. Our RST louver nets four times the cooling rate of the common stamped louver at little to no speed.

Looking at 60 mph wind tunnel cooling data above most vent designs on the market, mesh style vents and stamped louvers, dont perform well at speed. Our RST louver nets more than double the cooling than the stamped louver on the highway.

Race Louvers puts the two together combining the best cooling at speed with the best cooling at zero speed.

Conclusion

Benefits of Race Louvers over others:

- The best cooling at highway speeds, towing, crawling rocks, cruising the trails, idling or parked.
- Cooler engine bay temperatures
- Less heat soak
- Less chance of hot start issues

There you have it, as we've seen before not all hood vents are created equal. Race Louvers hybrid extractors combine a few elements of different vent designs to maximize cooling at speed as well as cooling at low or no speed. So not only do our extractors provide double the cooling over other vent designs at highway speeds but have four times the cooling rate at a stand still.

Video: https://www.youtube.com/watch?v=QYltM_yWGjU

Race Louvers LLC
908-447-5788
info@racelouvers.com