

TOP SECRET

MISHIMOTO
RESEARCH & DEVELOPMENT

Mishimoto 25-Row Oil Cooler

MISHIMOTO ENGINEERING REPORT

Subject: Mishimoto 25-Row Oil Cooler

Test Report for 25-Row Oil Cooler

Test Vehicle

2006 Evo 9 MR

Testing conditions

Testing took place on a mild day. Temperature range: 60-64°F.

Experiment

The goal of testing was to show what kind of temperature and pressure losses are possible with a Mishimoto 25-row oil cooler. The test was performed on a highway, cruising at 65 mph for approximately three miles. Special care was taken to distance our test car from the vehicle ahead to ensure that fresh clean air was reaching the oil cooler.

Tech Specs

Overall size: 13" x 8.5" x 2"

Core Size: 11.5" x 7.25" x 2"

Rows: 25

Inlet: -10AN

Outlet: -10AN

Core Thickness: 2"

Added Oil Capacity: 0.44 Qt

**DO NOT
COPY**

TOP SECRET

MISHIMOTO
RESEARCH & DEVELOPMENT

Mishimoto 25-Row Oil Cooler

Apparatus

For hardware Mishimoto chose the PLX sensor modules driven by the Kiwi WiFi plus iMFD. This is a wireless system from the sensor modules to an iPad or laptop computer. The software used was the Palmer Performance Scan XL pro, which has full data logging capabilities.



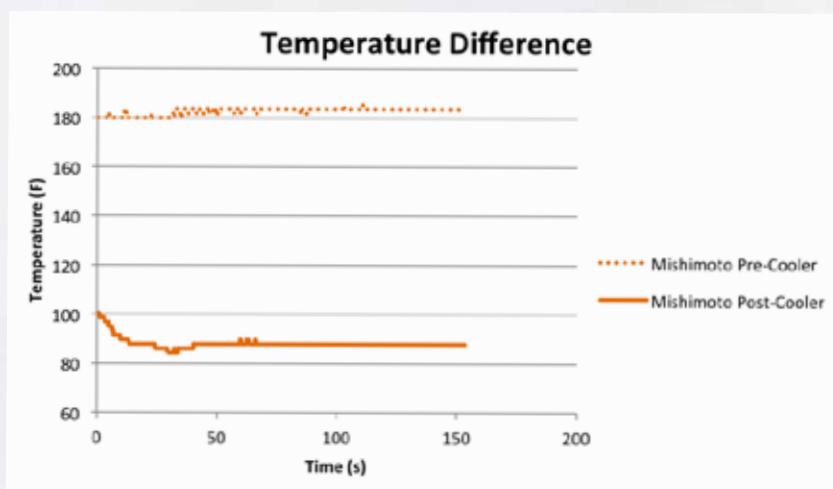
Fluid temperatures were taken from both the inlet and outlet of the 25-row oil cooler, using custom inline sensor housings and PLX fluid temperature sensors. Oil pressure was also tested to ensure that no dramatic pressure drop occurs when installing the oil cooler.

DO NOT COPY

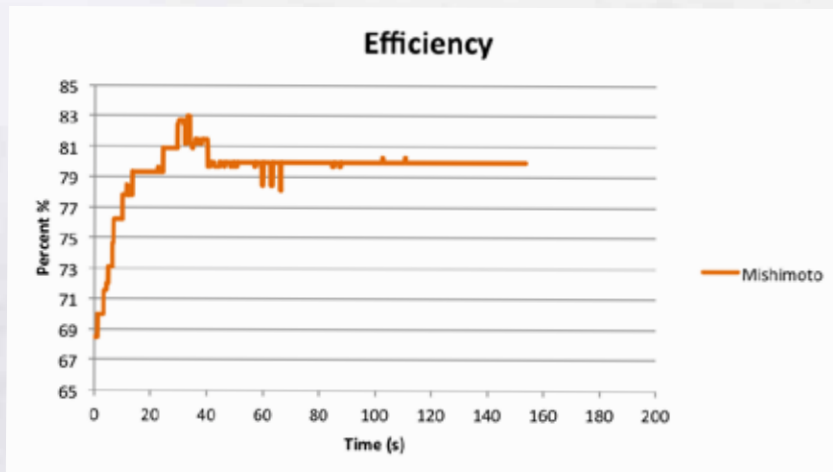
MISHIMOTO

RESEARCH & DEVELOPMENT

The temperature drop is just above 90 degrees, which is very good. It is worth noting that the test vehicle had ducting to help the air flow through the oil cooler. Mishimoto always recommends this setup, as it has been proven to give the best performance.



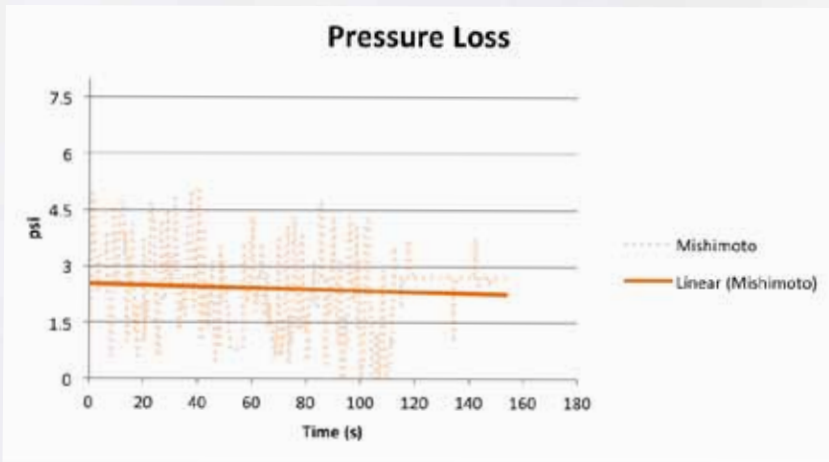
The efficiency is very high for this test vehicle under the conditions stated above. Depending on the vehicle type, driving conditions, and weather conditions, results may vary. Pressure loss averaged 2.5 psi for the Mishimoto 25-row oil cooler. No harm to the engine will occur by adding this cooler to your system.



MISHIMOTO

RESEARCH & DEVELOPMENT

Pressure loss averaged 2.5 psi for the Mishimoto 25-row oil cooler. No harm to the engine will occur by adding this cooler to your system.



Conclusion

The 25-row oil cooler performed excellently; it removed almost 90 degrees of heat from the oil, and it lost only 2.5 psi of pressure in the process. The Mishimoto 25-row oil cooler is our largest cooler and should be installed in vehicles that are regularly tracked. If the vehicle is used on the street, we recommend using a thermostatic sandwich plate that will regulate the oil temperature for cold-weather driving.

Kevin McCardle
Product Engineer, Mishimoto Automotive