

NISSAN Z VR30 INTERCOOLERS



SKU NUMBER

AMS.47.09.0001-1

\$2,295.⁹⁵

The AMS Performance Nissan Z VR30 Intercoolers provide exceptional heat transfer efficiency due to their superior engineering, materials, and construction. Our team was able to not only increase core size, but they incorporated a unique counter-flow core design unlike anything else currently on the market. The counter-flow design allows for maximum thermal transfer that is simply not achievable with a conventional cross-flow core. With a 70.4% increase in core size over factory, CNC billet aluminum end tanks, and upsized air inlets, outlets, and coolant ports, the AMS Performance Nissan Z VR30 Intercoolers redefine heat management for the VR30DDTT engine.

- **LARGEST AND MOST EFFICIENT INTERCOOLERS ON THE MARKET**
- **40°F RECORDED DROP IN INTAKE AIR TEMPERATURE OVER OEM**
- **USED ON THE WORLD'S FASTEST VR30 POWERED CAR – 9.53 @ 144 MPH QUARTER MILE**
- **70.4% INCREASE IN CORE SIZE OVER OEM FOR UNBELIEVABLE HEAT TRANSFER**
- **LARGEST INTERCOOLER CORE SIZE ON THE MARKET**
- **UNIQUE COUNTER-FLOW CORE DESIGN FOR IMPROVED EFFICIENCY OVER THE COMPETITION**
- **CUSTOM AMS SPEC FIN HEIGHT AND DENSITY ON CORE INTERNALS**
- **OPTIMIZED TMAP LOCATION FOR IMPROVED TEMPERATURE READING ACCURACY**
- **CAD DESIGNED AND CNC MACHINED 6061 T6 BILLET ALUMINUM END TANKS**
- **NEGLIGIBLE AIR AND WATER SIDE PRESSURE DROP COMPARED TO OEM**
- **DRASTICALLY INCREASED COOLANT FLOW THROUGH UP TO 33% LARGER WATER PORTS AND LINES**
- **CFD ANALYSIS PERFORMED ON CORE AND TANKS TO ALLOW FOR OPTIMIZED HEAT DISSIPATION**
- **2.5" INLET AND 2.75" OUTLET FLANGES FOR UNRESTRICTED AIRFLOW TO ENGINE**
- **EASY INSTALLATION IN OEM LOCATION WITH UPGRADED WATER LINES AND COUPLERS**
- **CAN BE USED ON STOCK OR MODIFIED VEHICLES TO REDUCE HEAT SOAK**



APPLICATIONS

- 2023+ Nissan Z w/ VR30DDTT Engine

PRODUCT NOTES

- Does not fit with factory engine cover.
- Compatible with OEM, AMS RA338, and RA405 High Pressure Fuel Pumps. Other brand HPFP fitment not guaranteed.
- Compatible with OEM and AMS MAP Sensors.
- Compatible with AMS Fuel Filter.

TO VIEW FULL SPECS AND IMAGES VISIT :

amsperformance.com/product/ams-performance-nissan-z-vr30-intercoolers



CROSS-FLOW DESIGN FOR IMPROVED EFFICIENCY

The factory intercooler system on the VR30DDTT engine leaves a lot of room for improvement. Starting by designing the AMS Heat Exchanger to expel excess heat in the system, our team knew as time went on the platform would advance to higher and higher power levels that would necessitate better cooling, which is why our AMS SNAILWORKS® Engineering Team went back to the drawing board to push the Nissan Z platform even further.

The AMS Performance Nissan Z VR30 Intercoolers completely rethink how VR30DDTT intercoolers can be designed. While nearly all aftermarket air-to-water intercooler cores feature a conventional cross-flow design, our engineers identified that a counter-flow system can allow for improvements in thermal efficiency due to the way they pair the coolest water with the coolest air, inside the core. The AMS Performance Nissan Z VR30 Intercoolers are properly engineered for maximum thermal transfer.

ENGINEERED TO BE THE BEST

AMS Performance is an engineering company first. We have built our over 20 year reputation as a leading motorsports aftermarket component manufacturer by creating the highest performing parts through a focused approach to design. Where others in the industry settle for "good enough", we strive for excellence. This design methodology allows us to include features not found in other kits on the market, including CAD designed billet 6061 T6 aluminum end tanks for improved fitment and aesthetics, and large CNC machined integrated barb fittings and high quality coolant hoses. Our team didn't stop at improved aesthetics however, they were able to design an included line kit with 33% larger feed lines and 20% larger return lines over OEM. While others use tiny low quality fittings and low grade rubber hoses, the AMS Snailworks® Engineering Team have put together a system that uses the highest quality materials for years of trouble free operation.

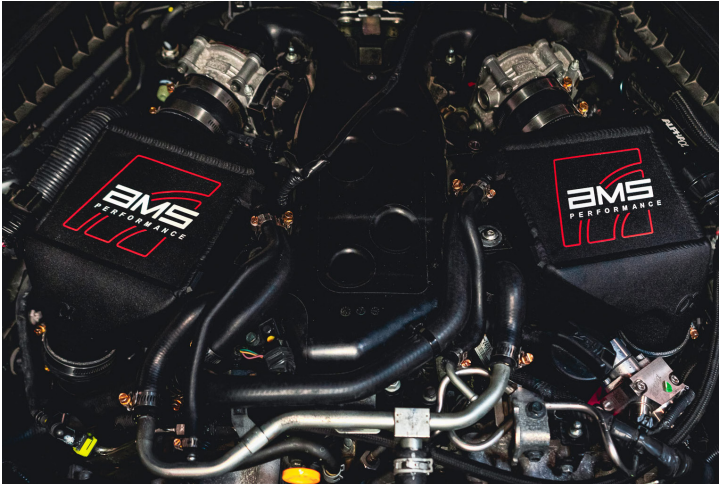
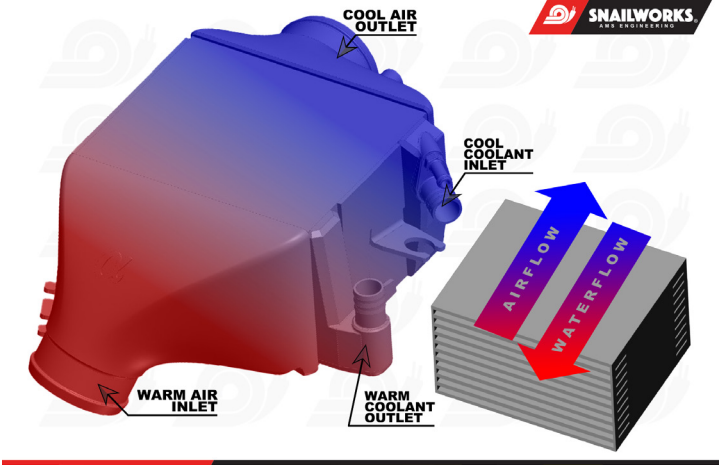
SIZE MATTERS

For the foundation of the AMS Performance Nissan Z VR30 Intercoolers we chose large, motorsport quality, counter-flow cores. This high efficiency, custom specified core is much larger and dissipates heat quickly for maximum cooling. Through our larger design, added thermal transfer capability, and drastically increased coolant flow, your 3.0L VR30 twin turbocharged engine benefits from reduced intake air temperatures (IAT), boosting your power output.

By massively increasing the volume of the core and optimizing the thermal transferring surface area compared to OEM, you gain an extraordinary amount of added cooling efficiency. The AMS VR30 Intercooler cores are an astounding 70.4% larger than the factory intercooler cores. You gain increased thermal efficiency for the entire intercooler system by accommodating this additional heat transfer capability. Whether you live in a hot climate region, enjoy drag racing, or long high speed pulls on airstrips the AMS Performance Nissan Z VR30 Intercoolers will help keep your intake temps lower and maintain your Nissan Z's maximum power output no matter the conditions.

BETTER DATA THROUGH PROPER ENGINEERING DESIGN

One of the most important systems on the VR30DDTT engine is the Temperature Manifold Absolute Pressure (TMAP) sensor, and how it functions to inform the ECU's compensation tables during engine operation. The location of this sensor on OEM and other aftermarket intercoolers places it in an isolated pocket of air inside the intercooler end tank. This leads to considerably delayed temperature readings, delaying important temperature related calibration strategies from taking effect. Our AMS SNAILWORKS® Engineering Team was able to optimize this sensor location to allow for more responsive and accurate temperature data. With accurate air temperature readings from the AMS Performance Nissan Z VR30 Intercoolers, your tuner can more precisely calibrate air temperature related safety trims and corrections to optimize power and improve safety in any condition.



OEM vs AMS Intercooler Sizing

