Installation Instructions: MaxG MotorSports Turbo Oil Filter/Cooler

Contact information:

Office: 830-438-2890
Toll Free: 844-562-9467
Email: info@maxgms.com
Website: maxgms.com

SHOWN WITH OPTIONAL PRESSURE GAUGE

Overview

Any turbocharged vehicle can benefit from the installation of the MaxG Turbo Oil Filter/Cooler.

The MaxG Turbo Oil Filter/Cooler is dedicated specifically to the turbo. It is installed in the oil feed line going from the engine to the turbo. It provides additional oil filtering, oil cooling, and if the optional pressure reducing orifice is installed, reduction in oil pressure to the turbo.

While most aftermarket turbo installations source the turbo's oil after the stock oil filter, there are some that do not. Regardless of how your system is configured, an extra dose of oil filtration proves useful in the long-term wear of the turbo bearings and seals

The reduction of a few degrees of temperature from the turbo's life blood moves the operating temperature further away from the coking temperatures. The effectiveness of the temperature reduction is in part dependent on where the Turbo Oil Filter/Cooler is installed. Try to locate the Filter/Cooler near an air inlet point and away from heat generating sources such as exhaust components or the radiator.

The MaxG Turbo Oil Filter/Cooler also has provisions for reducing the oil pressure to the turbo. It is common among aftermarket turbo systems for engine oil pressure to exceed the recommended values for the turbo. Excessive oil pressure can lead to oil escaping past the turbo's shaft seals and leading to a smoking condition. A pressure reducing orifice can be installed in the flow path to reduce the pressure supplied to the turbo. An advantage offered by the MaxG Turbo Oil Filter/Cooler is the orifice is located downstream of the oil filter. This provides an extra level of protection from the orifice becoming plugged. Other orifice installations do not offer this extra level of filtration. An oil pressure gauge option is available for monitoring the oil pressure to the turbo.

Installation

1) If you are installing the restrictor orifice, do so before installing the oil filter or mounting the assembly to the vehicle (see *Figure 1* for restrictor location).

Figure 1

2) Find a breezy spot under the hood for cooling that allows easy access for changing the filter element. Try to avoid heated air from the engine cooling system or mounting close to exhaust system components.
3) Install the Turbo Oil Filter/Cooler so that the centerline is vertical. This helps avoid oil spillage when removing and replacing the filter element. Be sure to leave space below

the filter to allow removal since it spins downward. Another 90° bent bracket can be bolted to the stock bracket. This will allow mounting the Filter/Cooler above a horizontal surface (see *Figure 2*).

Figure 2

4) There are three approaches to hooking up oil lines; look the system over and decide which is most appropriate (see *Figure 3* for port locations on the Turbo Oil Filter/Cooler). The types of fittings and line length will vary from one installation to another. Give us a call if we can help determine your needs.

Methods:

1. Leave the existing oil supply line connected to the turbo. Disconnect the line from the engine and connect it to one of the outlet ports on the Turbo Oil Filter/Cooler. This requires unhooking the oil line from the engine. This connection is sometimes inaccessible on certain vehicles.

   Make a new oil supply line that goes from the engine to the one of the Turbo Oil Filter/Cooler inlet ports.
2. Leave the original oil supply line attached to the engine and remove the end attached to the turbo. Attach the free end of the original oil supply line to one of the inlet ports on the Turbo Oil Filter/Cooler. Most applications will allow the original oil feed line attached to the turbo to be removed and added to Turbo Oil Filter/Cooler inlet
3. Remove the original feed line and replace it with two new lines.

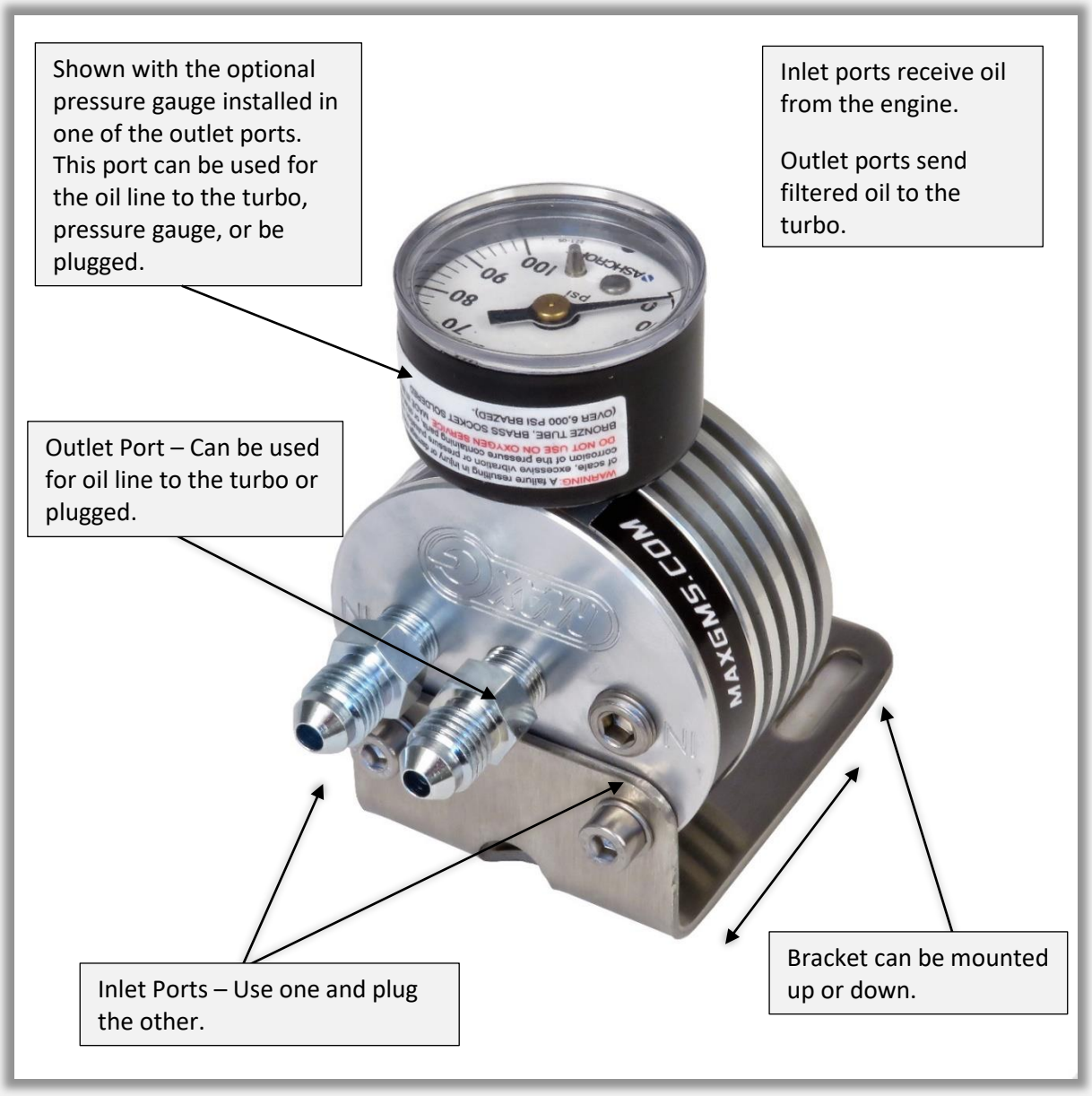

Figure 3

5) Once the Turbo Oil Filter/Cooler is mounted and the lines are connected, **fill the filter element with oil before installing it.**
6) Tighten the filter element to the manufacturer's specifications.
7) Start the engine and check for leaks.

8) If you've installed the oil pressure gauge, check the oil pressure going to the turbo. Without the restrictor installed the oil pressure will be near the engine oil pressure. With the restrictor installed the oil pressure will generally fall between 25 to 60 psi. These are pressures for 2,000 RPM and above on a warmed up engine. Oil pressure at idle may be less. If your oil pressure falls outside of this range please give us a call.

Accessories

- Restrictor with .035" orifice – PN. 10141
- 100 PSI Pressure Gauge – PN. 10011
- 90° Bracket Kit (bolts to the slots in the provided bracket) – PN. 10147
- Flat Bracket (for horizontal surface mounting) – PN.10152
- Fittings and line for plumbing into the oil supply line. We recommend -4AN fittings (two supplied) and oil-resistant braided Stainless Steel lines. We stock additional lines and fittings if required.

If you have any questions or comments, please feel free to contact us.

Thank you for your business!