



Building a Custom Air Intake

When converting a vehicle to fuel injection or possibly swapping in a fuel injected engine, one of the 'challenges' that can be encountered is how to put an air filter on the engine.

Some engines require the use of a Mass Air Flow (MAF) sensor, a device that fits in the ductwork between the air filter and the throttle body and measures the amount of air entering the engine. Engines that require a MAF sensor, increase the difficulty of placing the air filter since ductwork must be built that will also incorporate the MAF sensor.

An option with engines that don't use the MAF sensor is to attach a filter directly to the front of the throttle body. This is often the simplest option if there is enough clearance between the radiator, fan, belts and accessories. It makes for a very clean installation and is very popular with hot rodders and those with show cars.



TPI engine with air filter attached directly to throttle body.

The downside to installing the air cleaner directly on the throttle body is that, in most cases, the engine will be drawing in hot air that has just passed through the radiator. Of course, we all know that the cooler the air entering the engine the more efficiently the engine will run. So putting the air filter directly on the throttle body is a clean and simple solution but not always the best from a performance and efficiency standpoint.

In order to get cooler air into the engine, it is necessary to build ductwork to relocate the air filter to a cooler place. This can be accomplished in a variety of

ways. We've seen this type of thing done with dryer hose and PVC pipe, among other things, but we don't recommend it! That type of arrangement isn't very sturdy, often doesn't stand up well to heat, and is hard to get to seal well.

At Arizona TPI, we build a lot of custom ductwork and have learned some tricks over the years. The most important thing is to start with quality materials. We carry rubber elbows, aluminum tubing and assorted air filters that can be used to build all kinds of custom air intakes.



Custom ductwork and air filter ready to be installed in a vehicle.

The rubber ducting that we like to use has 1/4" wall thickness and comes in 3", 3 1/2" and 4" diameters, 45° and 90° bends and can be used along with our aluminum tubing of the same sizes. These can be clamped together in all sorts of creative ways. Drop by the shop or check this stuff out on our website!

New Website Project Gallery

We've been working away on our website, adding products to the catalog and other features as well. It seems that all of this happens slower than we expect but apparently that's the nature of this sort of thing. A feature that we recently added, and that we're pretty proud of, is our project gallery. We've added some of the projects that we had pictures for and now we have the capability to add features much more easily. Check it out, you might find your project in there. Or maybe it will show up there soon!

Holiday Gift Ideas

Right now we're in denial but, believe it or not, the holidays are right around the corner and it's time to start thinking about gifts for friends and loved ones. Personally, I can hardly wait to see the joy in my wife's eyes when she finds that supercharger kit for her Suburban under the tree on Christmas morning. I might even throw in free installation if I'm really swept up in the holiday spirit! Or is that holiday spirits?

Seriously though, if you need an idea for that hard-to-buy-for car enthusiast on your gift list – or for yourself – Arizona TPI has the solution. We have gift certificates available for any dollar amount!

Another great gift idea is the Innovate Motorsports LM-1 Wide Band Air/Fuel Ratio monitor. We'll be stocking these in the store in the next couple of weeks and they will be available soon on our website. We expect the LM-1 Monitor to be priced at about \$349 and the LM-1 Monitor with RPM Converter to go for about \$429. We'll do a story on these items in an upcoming newsletter.

Call or drop by the store and we'll take care of your car enthusiast gift needs.

Goodguys Show This Weekend

We spent a beautiful weekend in October at the "3rd Annual Roddin' for a Reason" car show at Firebird International Raceway. This event was part of the Truck & 4X4 Nationals. There were some awesome cars there and the trucks and 4X4's were impressive too! We met a lot of great people and had a wonderful time!

This coming weekend we'll have a booth at the Goodguys Rod and Custom show at West World in Scottsdale. The dates are November 17th, 18th, and 19th. This is a huge event with 2,500 cars expected and 50,000 spectators attending. Come on out and see us, enjoy the beautiful Scottsdale fall weather and check out one of the biggest gatherings of '72 and earlier vehicles you'll see in the Phoenix area!