

Imagine an oil filter that fits most bikes on the road today. A filter so technically advanced it's based on technology that has been used in NASCAR, Formula One and the aerospace industry. And what if it was the last filter you needed to buy for your motorcycle due to its reusable filter element, lessening the burden on our landfills?

This oil filter is here today, and it combines magnetic pre-filtering, a progressive rate bypass and high-flow characteristics to help avoid unfiltered oil bypassing the filter during cold startup. Add to that beautiful form and function melding that results in a design which not only helps lower oil temperatures but also looks beautiful doing so. That oil filter is here today thanks to the bright minds at K&P Engineering.

Most riders are under the assumption when it comes to changing their bikes oil filter, choices are limited to OEM and aftermarket manufacturers of paper filters when that is simply not the case. K&P Engineering has been manufacturing reusable micronic stainless steel oil filters for the past 13 years. Starting off with a couple of different applications for dirt bikes and ATVs, the company now makes models to fit a wide range of applications including all major street bikes, dirt bikes, and ATVs. Over the years their filters have been proven in thousands of vehicle applications, on the street, in the dirt, and on numerous racetracks.

The reusable filter offers many features not found in standard paper filters. Outstanding performance is obtained by their high flow rates, magnetic pre-filtering, consistent filtering medium, billet outer housing which aids in cooling the oil, and a unique progressive rate bypass which avoids unfiltered oil bypassing the filter at startup, and high-rpm operation — a major concern with standard paper filters.

At the heart of the filter is a medical grade 304 stainless-steel micronic cloth filter designed to pass a large volume of oil when compared to standard paper filters. The cloth is designed to filter out particles 35 microns or larger.

Before you start with the, "my filter is rated at 5 microns and it filters way better," you need to understand just how the micron rating applies to oil filters. According to K&P Engineering, paper filters are rated on averages, percentages and multiple passes, so a 10-micron-rated paper filter may be letting particles 50 microns and larger through. The medical grade stainless steel cloth they use in their filters is consistent across the entire surface and is rated at 35 microns, meaning nothing larger than 35 microns should pass through the material.

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The bottom line is that paper is rated differently than the stainless cloth. To put things in perspective, a micron is one-



thousandth of a millimeter. That's approximately .00003937 inch, therefore 35 microns is about .00138 of an inch. Dave Fisher at K&P Engineering ensures us that this filter meets or exceeds the filtration performance of factory filters.

A major difference between the stainless steel micronic cloth filter and standard paper filters is in how much oil the filter will flow. K&P Engineering's testing has revealed their filters flow a consistent 7 times the volume of standard paper filters. K&P says this increased flow rate really helps you out by having much less back-pressure on the oil pump (equating to more horsepower), oil pressure building faster and peaking quicker at startup, and better cooling capability by getting oil to the engine easier.

By having such a high flow rate, very little, if any, oil bypasses the filter at startup. This is a critical time when it comes to filtering oil, since cold, thick containment-laden oil is pulled from the bottom of the oil tank. Much of this oil can bypass the filter due to excessive resistance of a restrictive paper filter, with the result of unfiltered oil flowing through your oiling system. To add even more protection, K&P Engineering adds a neodymium rare-earth magnet to the base of the filter section. This powerful magnet provided pre-filtering of ferrous particles of any size suspended in the oil.

Another upside of the filter is in its ability to be easily opened-up, allowing for inspection. This can be a valuable tool for racers and the everyday rider as well. The capacity to closely examine what the filter has separated from your oil can go a long way in diagnosing or pointing to potential problems before major damage can be done to your engine's internals.

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The filter consist of a billet-aluminum case and stainless-steel micronic cloth filter element, and it comes complete with a spring and quad-ring seal, as well as an oil filter cup wrench. They are available in a variety of finishes including standard billet, anodized, and chrome. You can expect to pay around \$120 for billet, \$130 for anodized, and \$150 for chrome – maybe a few bucks more or less depending on your motorcycle.

When you consider the cost of Harley's SuperPremium chrome oil filter is \$13.95, the actual "payback" will vary from rider to rider. Normal service interval for oil filters is 5K (and lots of guys do it at 3K) miles. If you ride 15K a year, that's \$41.85 a year. The ability to use the inspection process to look for signs of wear is an invaluable tool for racers. The fact that an everyday rider can also see what's coursing through their engine is an added benefit, whether they choose to take advantage of it or not.

The K&P filter also has the benefits of reduced oil temperatures by the filter's ribbed design without the added expense or work involved to install a separate oil cooler. I



believe when you factor in all the upsides and the downsides of this piece, it is indeed a good value.

[K&P Engineering](#)

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