



## Heavy-Duty By-Pass Filtration System

### Heavy-Duty Remote Filtration System and Ea By-Pass Filter combine to provide outstanding oil filtration efficiency

The AMSOIL Heavy-Duty By-Pass Filtration System (BMK30) provides superior filtration performance for heavy-duty on- and off-road applications. It is designed specifically for the Ea Heavy-Duty By-Pass Filter (EaBP120), bringing Ea synthetic technology to the heavy-duty market.

#### By-Pass Basics

By-pass oil filtration features a secondary filter with the purpose of eliminating nearly all contaminants from motor oil. By-pass filters have high capacities and eliminate much smaller particles than full-flow filters, including soot. By-pass filters reduce engine wear and increase oil volume, but their high efficiencies mean they also have higher restriction and must be used in conjunction with a full-flow filter.

By-pass filters operate by filtering oil on a “partial-flow” basis. They draw approximately 10 percent of the oil pump’s capacity at any one time and trap the extremely small, wear-causing contaminants that full-flow filters can’t remove. By-pass filters have a high pressure differential, causing the oil to flow through them very slowly and allowing for the removal of smaller contaminants. It is called by-pass filtration because the oil flows from the by-pass filter back to the sump and by-passes the engine. This continual process eventually makes all of the oil analytically clean, reduces long-term wear and can dramatically extend drain intervals.

#### AMSOIL Heavy-Duty By-Pass Filtration System

The AMSOIL Heavy-Duty By-Pass Filtration System includes all necessary hose-end fittings and mounting bolts, but the filter, hose and engine adapter must be purchased separately. The hose and engine adapters are not included due to the kit’s high variability of application, resulting in varied mounting locations, hose lengths and engine adapter sizes. Prior to installation, determine where the filter mount will be located and how much hose will be necessary to complete the installation. The installer must also determine the size of the high- and low-pressure ports in order to determine which engine adapters to purchase. Hose is available by the foot from AMSOIL (BP250), and adapter fittings can be purchased from any hydraulics or heavy-duty equipment outlet.

#### High-Quality, Durable Construction

The Heavy-Duty By-Pass Filtration System is constructed of high-quality cast aluminum with a steel filter spud that has been thoroughly tested in on-road and severe off-road service. The mount is finished with a thick layer of powder-coated paint to provide maximum resistance to the degrading effects of road salt, debris and engine-compartment chemicals.

#### Compatible with Very Large Engines

Heavy-Duty By-Pass Filtration Systems can be plumbed in a series to provide maximum filtration protection for large V12 and V16 engines. The filter mount features a 3/8 NPT connector that connects the outlet and inlet of adjacent filter mounts. For more information on engine adapters or the installation of multiple by-pass systems on one application, contact AMSOIL Technical Services at (715) 399-TECH.



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## General Installation Guidelines

Determine the location of a pressurized oil port on the engine. Pressure ports are usually found on the main oil galley or in close proximity to the full-flow filter head assembly. The oil flow from this source should be plumbed into the inlet side of the filter mount. The outlet will be directed to a low-pressure point on the engine, typically a port located at or near the oil pan. Detailed instructions are included with the Heavy-Duty By-Pass Filtration System kit.

## Heavy-Duty

The AMSOIL Heavy-Duty By-Pass Filtration System saves money by enabling the installation of an AMSOIL Ea By-Pass Filter. Its heavy-duty design is ideal for equipment subjected to extreme conditions. The ability to mount the system remotely allows the equipment operator to more easily change filters, adding convenience and reducing the amount of time necessary to perform routine maintenance.

## AMSOIL Ea Heavy-Duty By-Pass Filter

The AMSOIL Ea Heavy-Duty By-Pass Filter features the same full-synthetic media as the rest of the Ea By-Pass Filter family. It removes 98.7% of all contaminants two microns or larger (ISO 4548-12), and provides superior soot-removal efficiency at less than one micron. It comes complete with a marine powder-coated finish for long filter life, even in extreme conditions.

## Increased Oil Capacity

The Ea Heavy-Duty By-Pass Filter increases the fluid system capacity by approximately one gallon, depending on length of hose and distance the filter is mounted from the engine. The additional oil and extended filtration life provide improved oil cooling and ensure equipment constantly runs on clean oil. Engine efficiency is increased, providing extended engine life.

## Extended Service Life

AMSOIL recommends changing the Ea Heavy-Duty By-Pass Filter every other full-flow filter change up to 90,000 miles. Extended oil drain intervals should always be accompanied by an oil analysis program.

## Heavy-Duty Filtration

The Ea Heavy-Duty By-Pass Filter was designed for heavy-duty applications. Its robust construction and superior filtration performance provide maximum protection over extended drain intervals, reducing downtime, increasing equipment life and saving money.

- Extended drain intervals
- Improved oil cooling
- Increased filtration capacity and life
- Increased fluid system capacity
- Efficient small particle and soot removal
- Extended engine life
- Maximum engine efficiency
- Removes particles less than one micron
- Convenient spin-on design

## APPLICATIONS

The AMSOIL Heavy-Duty By-Pass Filtration System and Ea Heavy-Duty By-Pass Filter provide maximum filtration performance for virtually all heavy-duty diesel applications, including Class 6, 7 and 8 heavy-duty trucks, off-road equipment, buses, generators, marine engines, logging and agricultural equipment.

## AMSOIL PRODUCT WARRANTY

AMSOIL products are backed by a Limited Liability Warranty. For complete information visit [www.amsoil.com/warranty.aspx](http://www.amsoil.com/warranty.aspx).



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