

## Hydraulic Filtration

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80% of hydraulic system component failures are caused by excess contamination in the hydraulic system.

Hydraulic or fluid power systems can be found on a variety of equipment. Systems range from the relatively simple power steering and transmission of trucks and buses, to the more complex systems found in agricultural, construction, marine and mining applications.

These systems contain precision-machined components that are very sensitive to wear from abrasive particles and need to be protected.

Contaminants can enter hydraulic systems from a number of sources:

- Built-in from the manufacture of the system and its components
- Quality and cleanliness of the hydraulic fluid used and the filling process
- Operational ingress where rams and cylinders are exposed to dusty atmospheres and missing ineffective tank breathers
- System generated wear particles

Eliminating contaminants from the onset is preferable through effective maintenance processes, however Cummins Filtration offers a comprehensive range of replacement suction, return, pressure and offline hydraulic filters to cover a variety of applications. We also produce four families of general purpose mix and match spin-on filter heads and filters covering different flow and pressure requirements in a range of filtration efficiencies. Our filters meet or exceed the original equipment manufacturers' specifications and are supported by our unmatched global warranty for your peace of mind

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Description

FAQS

### What is the by-pass setting for lube and hydraulic filters?

Each lube filter and hydraulic filter system is equipped with a by-pass valve to ensure main components in the system are sufficiently lubricated if oil is cold or the filter is blocked by excessive contamination. The by-pass valve can be located in the filter or filter head. Depending on the OEM manufacturer's specification, the setting of the by-pass valve can differ. The Cummins Filtration catalogue lists the setting of this valve (14.7 PSI = 1 bar). If no setting is mentioned, no by-pass valve is mounted in the filter.

### What is the anti-drainback valve for lube and hydraulic filters?

The anti-drainback valve is fitted in filters for applications where potential risk of the filter running empty exists. This situation has to be avoided otherwise wear will occur on the moving parts as these parts are not yet lubricated by oil.

### What is a micron?

A micron is a thousandth of a millimetre or a millionth of a metre or .000039 of an inch. Micron is the unit of measure used to determinate the size of particles in a fluid which are filtered out by the filter.

### What is the difference between Absolute and Nominal micron rating?

Micron rating is the size of particles which are filtered out by filters at a certain efficiency. When this efficiency is at least 98.6%, we speak about absolute micron rating/filtration. Nominal micron rating is just a commercial trick for all efficiencies lower than 98.6%, meaning that for the same micron rating (for example 10 µ) in the case of nominal rating, not all particles will be captured in the filter as in the case of absolute micron rating.

### Why doesn't Cummins Filtration publish micron ratings for all its filters?

Generally this is not necessary. Cummins Filtration filters are designed to meet or exceed OEM specifications.

### Links

[1] [https://www.cumminsfiltration.com/south-pacific/sites/cumminsfiltration-empty.bitnamiapp.com.south-pacific/files/560x350\\_Hydraulic\\_Filtration\\_HF28952\\_0.jpg](https://www.cumminsfiltration.com/south-pacific/sites/cumminsfiltration-empty.bitnamiapp.com.south-pacific/files/560x350_Hydraulic_Filtration_HF28952_0.jpg)

[2] <http://locator.cummins.com>

