

PRODUCT CATALOGUE

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To Order, Call: +91 124 4904545 or email info@kleenoilindia.com

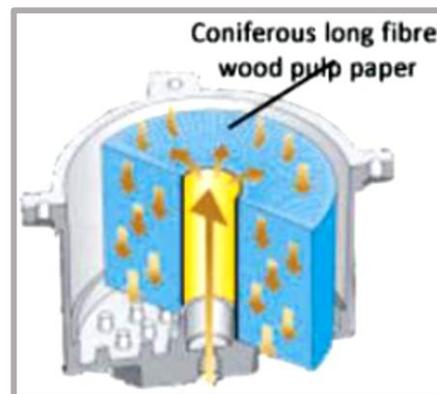
How Kleenoil Works...

The **Kleenoil Micron Filtration System**[®] is based on the principle of **In-Depth media filters** which allows fluid to flow through the layers of the Coniferous wood pulp paper. The long fibres of the paper attract the water, which arrives either through the combustion process or by condensation, and absorb it like a sponge, at the same time rejecting the larger oil molecules, which are forced to pass between the tight windings of the cartridge.

The Coniferous Media filters & filter cartridge operate upon a principle of **Absorption and Adsorption**. As the oil passes through the cartridge minute carbon, wear metals and dust are extracted from the oil by adhering to the many surfaces of the filter- a process known as adsorption

Fluid cleanliness, particularly in hydraulic systems, is extremely important. It is widely recognized that silt particles (<5 micron in size) are a primary cause of premature machine failure through abrasive wear of component surfaces. In addition, water is a major cause of system damage through accelerated oxidation, corrosion, and fluid breakdown.

Kleenoil absorbs all free and emulsified water and gradually removes contaminant particles down to less than **ISO 4406 16/14/11** or **NAS 1638 class 5** equivalent. Therefore, extends oil life through the removal of the oxidation catalysts and at the same time extends component life. The system can also be clean and transfer unused oil (ISO 16/11) prior to use.



Filter Cartridges

Replacement Cartridges

CARTRIDGE DESIGN

Cartridge is made of densely wound pure coniferous long fibre wood pulp paper, held together in a material casing offered in specified sizes for use in the appropriate filtration units.

Action of the cartridge: The filtration cartridge acts both by absorption and by adsorption in a continuous recycling process. Long fibres of the paper attract the water formed either through the combustion process or by condensation and absorb it like a sponge, at the same time rejecting the large oil molecules which are forced to pass between the tight windings of the cartridge. As the oil passes through the cartridge, minute carbon, wear metals, and silicon particles are extracted from the oil by adhering to the many surfaces of the filter - a process known as adsorption.

UNIT OPERATION



The Kleenoil Bypass Filter Cartridge will remove particles down to 0.5 micron (relative) and totally remove water. The principle for filtering particulate matter is 'liquid chromatography' which is in effect allowing a fluid to drain down a surface which will progressively arrest particles.

Water retention is approximately 1.2 litres per kilo of tissue.

UNIT DESIGN

CODE: SDFC 1888 / HDFC 1878 / KF65

Oil Flow Rate: Output levels are dependent on viscosity, temperature, degree of contamination, and oil pressure.

Guide – For SAE 15w/40 oil @ 70 c/ 60 psi/ 4.2Kcm-0.44gcm/ 2.01mp to 0.65gpm/ 3.01mp

Operating Temperatures: Within operating specifications of engine, gear and hydraulic oils. Filtration Level: Particulate contamination in accordance with BS 5540 part 4: 1981 and ISO/DIS 4406. ISO equivalent to NAS 1638 class 5. (Hydraulic oil specification)

By-Pass Luboil Filters

For On-Line 24/7 Filtration

Kleenoil By-pass Filter is an additional oil filter fitted in a by-pass route on an engine or machine without making any alteration to the existing system. It is capable to retain contaminant particles, carbon, wear metals down to under 1 micron and totally absorbs water.

It maintains the oil within its operating specifications therefore its life is increased resulting in savings in oil cost. The Kleenoil By-Pass Filter works by taking a percentage of the oil flow and filtering abrasive contaminants such as carbon, wear metals, silicon etc. down to less than one micron and totally removes water.

- ✓ Construction
- ✓ Marine
- ✓ Mining
- ✓ OEM
- ✓ Earth-Moving Equipment
- ✓ Agriculture
- ✓ Oil Field



Luboil By-pass fitment on
Construction equipment



Luboil By-pass fitment on
Earth moving equipment



Luboil By-pass fitment on
Mining equipment



Luboil By-pass fitment on
Oil Field equipment

By-pass Luboil Filters

SALIENT FEATURES

- Extends oil life by up to 5 to 6 times.
- Removes moisture, most acids and sulphur dioxides from the oil.
- Removes carbon down to approximately 3 microns; Is easy to install.
- Extends engine life by at least 2 times.
- Reduces engine and machinery components wear; Reduces pollution.
- Dramatically reduces engine downtime.
- Comes complete with fitting kit.

USING FILTERS IN ENGINES

A typical large engine has an oil flow of about 100-125 litres per minute, and to give an indication of the sort of flow this is, the average bath tap flows at about 28-40 litres per minute.

The oil pump draws oil from the sump, and passes it directly through the standard oil filters, which must not present a significant restriction, i.e. Oil must be at the same pressure before and after leaving the filters. After leaving the oil filters, the oil travels to a gallery from where it is directed to the areas which require lubrication, and immediately after the point of lubrication, it literally falls over a precipice back to the sump. To keep the moving parts separated, the oil must be held at substantial pressure, and bearing in mind the total loss of pressure at the point of lubrication, the flow must be substantial.

“THE PRINCIPLE”

The principle of “By-pass Filtration” is to leave the standard filters in place to cope with the bulk of the larger particles, which is all it can be expected to do given the speed at which oil must pass through it. The By-pass Luboil Filter is then installed on a separate loop which is not on the ‘full-flow’ route, and by a much slower process, it will remove insoluble such as carbon, wear metals, silicon etc. to less than 1 micron (relative), and totally remove water which normally combines with sulphurous by-products of diesel fuel combustion to form acidity.

These finer particles, water and acids are not removed by the standard oil filters, and their build up is the main reason for changing engine oil.

By removing them continuously immediately as they are formed, the Kleenoil System will enable oil to be retained in use considerably longer than is usual.

By-Pass Luboil Filters

Technical Specifications - THE LIGHT DUTY UNIT

9768 Light Duty unit
CODE LDU9768

The LDU is usable in engines with a sump capacity of up to 16 litres

Remote mounted unit for easy service.

Height	160mm
Diameter	120mm
Water retention (down to<0.05%)	0.32ltrs

Triple bolt seal system
Sold as a complete unit with pipework,
installation kit and initial cartridge

Item number: LDU9768
Single item weight:

UNIT APPLICATION



Warranty 12 months on all parts.

Replacement cartridge
CODE LDFC1868

Long fibre cellulose with nylon cover and
brass fastening.

Height	105mm
Diameter	104mm

Item number: LDFC1868
Single item weight:



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By-Pass Luboil Filters

Technical Specifications - THE HEAVY-DUTY UNIT

9778 Heavy Duty unit
CODE HDU9778

The HDU is usable in engines with a sump capacity of up to 40 litres

Remote mounted unit for easy service.

Height	165mm
Diameter	150mm
Water retention (down to<0.05%)	0.56ltrs

Quad bolt seal system
Sold as a complete unit with pipework,
installation kit and initial cartridge

Item number: HDU9778
Single item weight:

UNIT APPLICATION



Warranty 12 months on all parts.

Replacement cartridge
CODE HDFC1878

Long fibre cellulose with nylon cover and
brass fastening.

Height	105mm
Diameter	145mm

Item number: SDFC1878
Single item weight:



By-Pass Luboil Filters

Technical Specifications - THE KU UNIT

KU65 Duty unit
CODE KU65

The KU65 is usable in engines with a sump capacity of up to 65 litres

As an alternative for HDU/9778/KU50 in adverse operating conditions. And where excessive engine soot occurs.

Remote mounted unit for easy service.

Height	165mm
Diameter	180mm
Water retention (down to<0.05%)	0.95ltrs

Quad bolt seal system
Sold as a complete unit with pipework,
installation kit and initial cartridge.

Item number: KU65
Shipping weight: 4.90 kilo

UNIT APPLICATION



Warranty 12 months on all parts.

Replacement cartridge
CODE KF65

Long fibre cellulose with nylon cover and brass fastening.

Height	105mm
Diameter	175mm

Item number: KF65
Single item weight: 800G



By-Pass Luboil Filters

Technical Specifications - THE SUPER DUTY UNIT

The SDU is usable in engines with a sump capacity of up to 80 litres

Remote mounted unit for easy service.

Height	165mm
Diameter	220mm
Water retention (down to<0.05%)	1.2ltrs

Quad bolt seal system
Sold as a complete unit with pipework,
installation kit and initial cartridge

Item number: SDU9788
Single item weight:

UNIT APPLICATION



Warranty 12 months on all parts

Replacement cartridge
CODE SDC1888

Long fibre cellulose with nylon cover and
brass fastening.

Height	105mm
Diameter	200mm

Item number: SDC1888
Single item weight:





Some of our Customers

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Subros Limited, Noida, Sanden Vikas (India) Ltd, Faridabad

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