



# DATA SHEET

## HDFC - HEAVY DUTY FILTER CARTRIDGE

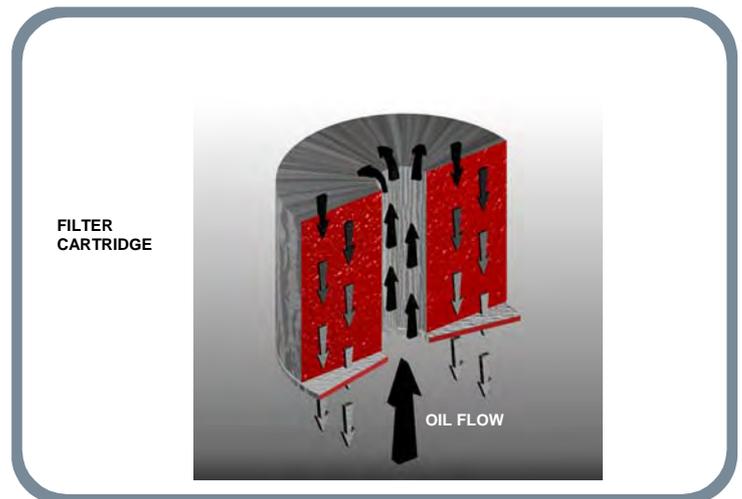
***Filters Oil Down To ISO 14/09  
Or Better***

***Removes Both Particles and  
Water From Oil***

***Does Not Affect The Additive  
Package Of The Oil***

***Made From Combustible  
Materials For Ease Of Disposal***

***High Dirt Holding Capacity***



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**CARDEV**

Industrial Filtration



Biodegradable Lubricants

## HDFC Cartridge Description

The Cardev Heavy Duty Filter Cartridge is a depth cartridge made of long fibre cellulose with a full diameter polyester protection disc. The filter is covered with nylon and encased in an outer tube which forms an integral part of the cartridge. The cartridge can be used on all pure oil based products such as hydraulic, engine and gearbox oils. The filtration is carried out at low pressures, off-line, cartridge pressures are controlled between 1 and 4 bar with a 6 bar maximum.

## Action of Cartridge

The filter cartridge acts by absorption and adsorption in a continuous recycling process. The long cellulose fibres attract the water formed either through the combustion process or by condensation and absorb it like a sponge, whilst at the same time rejecting the larger oil molecules which are forced to pass between the tight windings of the cartridge. Thus the cartridge, by removing water inhibits the production of acids. As the oil passes through the cartridge, minute particles of carbon, wear metals and silicon are extracted from the oil by adhering to the many surfaces of the filter. Through the continuous removal of water and contaminants the catalysing effect of the oil additives will be prevented enabling the oil life to be extended within the original specification laid down by the manufacturer. The additional extension of oil life will be dependent upon the operating conditions and maintenance programme applicable to the machine.

## Important note-additives

While the filter is extracting the water and contaminants it is continuously safeguarding the desirable elements (additives) compounded within the oil itself. These typically include, dependent on use, dispersants, VI improvers, lubricity agents, fungicidal, anti foaming and gelling additives. These additives are held in suspension and their levels can be critical if the oil is to maintain its beneficial effect. The Cardev filter will not remove these additives but enhances their life by the removal of contaminants which cause them to be activated.

## Disposal

Used cartridges should be disposed of in accordance with local regulations and are made from fully combustible materials.

## Cartridge Change Intervals

Taking into consideration the high dirt and water retention capacity, the filter change intervals can be individually determined according to the contamination and volume of the oil.

With a normal machine installation the recommended cartridge change frequency is 500 operating hours or 6 mths whichever comes first. Where the machine operates in adverse conditions this change frequency should be reduced to 250 operating hours. The maximum life of the cartridge is 6 months.

## Oil Throughput

Throughput levels are dependent on viscosity, temperature, degree of contamination and oil pressure. However, as a guide for an HDFC under the following conditions; ISO 46 grade hydraulic oil at 40 degrees centigrade with a 3 bar inlet pressure the flow rate is approximately 2.5 litres per minute.

## Operating Temperature

The cartridge will operate within the operating specification of engine, hydraulic and gearbox oils -10 to +95 centigrade.

Type	Cleanliness Class	Retention		Height mm	Diameter mm	Weight gm	Packing
		Dirt gm	Water ml				
HDFC	ISO 4406 11/9/6	UP TO 1000	370	112	143	500 ±5%	Boxes of 12



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