

# HYDRAULIC FILTER PROTECTION & PERFORMANCE



## THE KEY ROLE PLAYED BY THE HYDRAULIC FILTER.

Hydraulic systems are constantly developing. Progressively higher pressures and shorter cycles increase the constraints on the components. These become worn, thereby increasing the level of harmful contaminants in the oil that can cause the system to malfunction. To ensure that the oil retains all its qualities over time, thereby guaranteeing the long life and performance of the hydraulic system, the filtration system must be efficient and perfectly reliable.

The filter's primary function is to **trap all particles that have an abrasive effect** on the components of the hydraulic system such as the pump, control valves, cylinders and hydraulic motor.

Next, the filter must be able to store all the particles accumulated until the next oil change. There are two types of particles: Wear RESIDUSES and DUST.



#### **EFFECTS OF POOR FILTRATION ON THE HYDRAULIC SYSTEM:**



Damage to the pump piston.





Clogged cylinders.



### WHY CHOOSE GENUINE CASE HYDRAULIC FILTERS?

#### **ESSENTIAL PROPERTIES OF THE FILTER.**

THE GENUINE CASE HYDRAULIC FILTER OFFERS A NUMBER OF KEY BENEFITS:

#### **OPTIMUM FILTRATION**



#### **UNIQUE DESIGN**

#### Top-level efficiency

The filtration capacity of a genuine Case filter is up to **60X** greater than that of the adaptable filter.

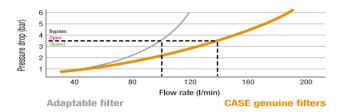
	Number of particles/ml present in the filtered oil		
Particle size	CASE GENUINE FILTERS	ADAPTABLE FILTER	
>= 4 μm	320 < x <= 640	10,000 < x <= 20,000	
>= 6 μm	80 < x <= 160	2,500 < x <= 5,000	
>= 14 μm	10 < x <= 20	640 < x <= 1,300	





#### Minimum pressure drop

With equal pressure drop, the genuine CASE filter has a higher oil flow rate. **The consequences are as follows:** improved cold starting, better protection of the hydraulic system and no overconsumption.



#### Perfect tightness

Tightness guaranteed by the inclined gasket and the stop enabling secure mounting.



#### **Managed maintenance**

Keen to protect the environment and reduce maintenance times, CASE has created a unique genuine support & cartridge system:





Support

During maintenance, only the cartridge needs to be replaced. This is done simply and cleanly thanks to the support which allows the oil to be collected. **Environmentally friendly and economical.** 

### THE COMBINATION OF THESE KEY BENEFITS MEANS GENUINE FILTERS HAVE SUPERIOR CHARACTERISTICS TO THOSE OF ADAPTABLE FILTERS

	CASE GENUINE FILTERS	ADAPTABLE FILTER
Retention capacity (g)	65	45.75
Size of filtered particles for a filtration capacity of 99%	8.04	11.71
Pressure drop (bar)	3	4

#### The genuine CASE hydraulic filter has:

- A higher retention capacity for a longer service life
- Finer filtration offering better protection
- Minimal pressure drop for better performance\*

\*The pressure drop must be as low as possible.

#### Did you know?

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TYPES OF FILTER	RISKS relating to poor filtration	CONSEQUENCES	
OIL	Premature wear of mechanical engine parts (crankshaft, camshaft, valves) and turbocharger	Engine/turbocharger damage	
FUEL	Fouling/damage to injection system	Breakdown/starting problems	
ENGINE AIR	Poor air circulation/engine not protected against external particles	Excessive fuel consumption/engine wear	
PASSENGER COMPARTMENT	Formation of bacteria/poor air circulation	Driver discomfort/formation of mist	
HYDRAULICS	Oil circulation and pressure limited	Loss of power/premature wear of hydraulic system	
ADBLUE	Urea injection system failure/wear	Non-compliance with emission standards/ switch to degraded mode	
BREATHER	Contamination of turbocharger and air exchanger	Durability and performance levels of components & organs reduced	



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