

# PROTECTION FOR YOUR ENGINE AND YOUR BOTTOM LINE.



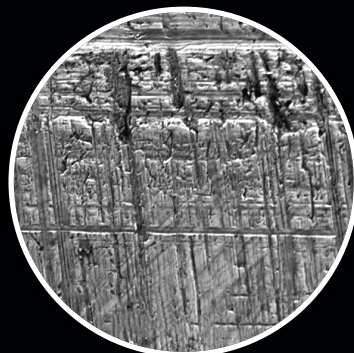
## Cat® Ultra High Efficiency (UHE) Engine Air Filters

No other engine air filter outperforms a Cat® UHE air filter when it comes to:

- Capturing damaging debris from intake air
- Protecting critical engine components
- Providing the lowest operating cost

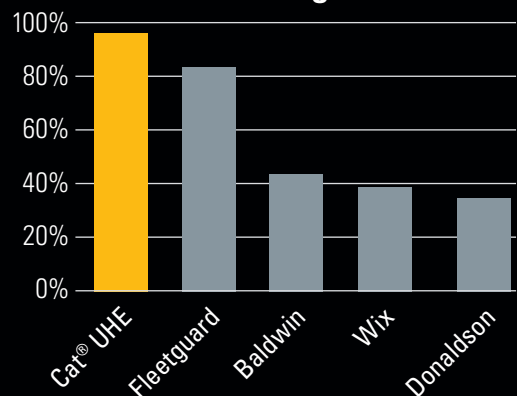
Cat equipment is designed to work in extreme applications where dirt, dust and other contaminants are common. Dust is abrasive and when contained in the intake air required for combustion, it will cause premature damage and wear to engine components.

This premature wear and resulting damage has a cost associated with it.



Magnified image of abrasive wear on a piston ring.

### Piston Ring Life



**50%**  
Increase  
in Piston  
Ring Life

Testing conducted by an independent test lab utilized different brands of engine air filters and measured wear occurring to the piston rings on a C13 engine. Based on the wear rates attained during the test, on average, the Cat UHE filter provides a **50% increase in piston ring life.**





# Cat® UHE Engine Air Filters— Protect Your Bottom Line

It is important to remember the filter with the lowest price isn't always the lowest cost option. A filter that provides better protection can significantly reduce your costs by extending engine life and minimizing the costs associated with a rebuild.

In order to reduce your overall operating cost, it is necessary to consider **ALL** of the costs associated with your engine air filter:

- **Filter Costs** — How much do you have to pay for the filter, and how frequently do you have to replace it?
- **Repair & Rebuild Costs (Parts, Labor & Downtime)** — How well does the filter protect your engine?

ANNUALIZED COST EXAMPLE			
	Filter Cost per Year	Rebuild Cost per Year*	Total Cost per Year
Cat® UHE Air Filter	\$395	\$5,455	<b>\$5,849</b>
Competitive Air Filter	\$318	\$11,585	\$11,903

\* In this example the Rebuild Cost is calculated by taking the parts and labor cost associated with an engine rebuild and dividing by the expected life based on the wear testing conducted. Better protection and lower wear rates results in longer rebuild cycles. This allows the cost of a rebuild to be spread over a longer period of time making the annualized cost associated with the rebuild less. The additional cost of downtime and lost production is not included but can be significant and would further increase the difference in rebuild cost.

Example assumes machine utilization of 2,000 hours/year, filter pricing that is readily available in the market and changing your air filter every 500 hours. Costs associated with six different machine models were averaged. Competitive values are based on the average for the 4 competitive brands tested. This example is in USD and is based on testing conducted, actual costs may vary depending on application, use and a variety of factors.

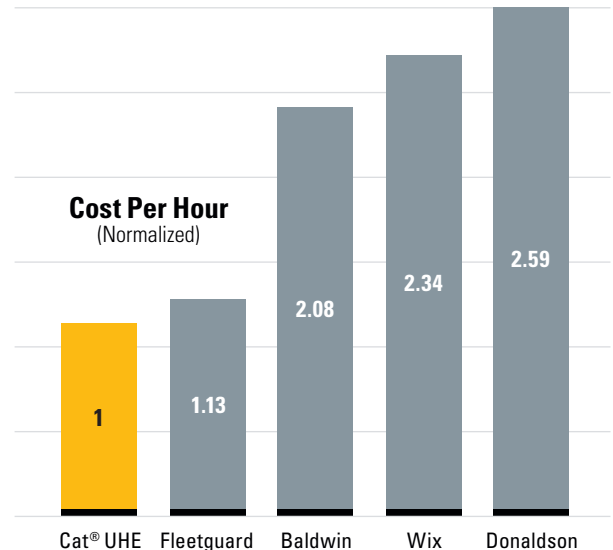
## LET'S DO THE WORK.™

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## Using The Wrong Filter Costs More



**Filter Cost Per Hour** — Considers the filter purchase price and assumes changing the filter every 500 hours over the expected life of the engine.

**Engine Rebuild Cost Per Hour** — Considers the price associated with parts and labor required for an engine rebuild and the expected component life based on wear testing conducted by an independent test lab. Cost of downtime is not included, but can be significant and would even further increase the cost differential.

## CAT DEALERS DEFINE WORLD-CLASS PRODUCT SUPPORT.

We offer you the right parts and service solutions, when and where you need them. The Cat dealer network of highly trained experts keeps your entire fleet up and running to maximize your equipment investment.

