



# LF1000 RUGGED ENDURANCE



WITH  
HIGHLY  
**ENGINEERED  
MEDIA**

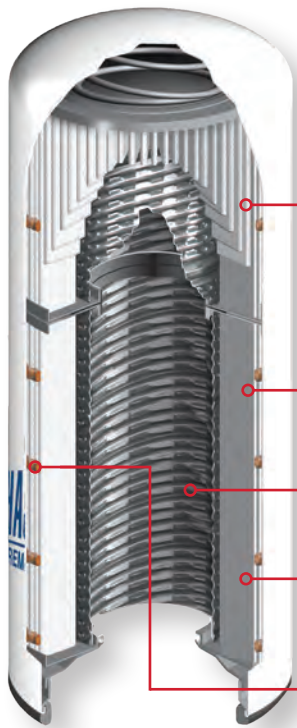
**FOR CUMMINS ISX ENGINES**



# DURABILITY & PERFORMANCE LF1000

Tough emission standards and advancements in engine design have led engine manufacturers to request new classes of oils with properties better suited to these highly efficient engines. Two new classes of oils have been developed (CK-4 and FA-4) with improved oxidation, aeration and shear stability characteristics.

Advanced engine designs mean heavy-duty filtration is critical for maximum protection through the entire recommended service interval. Hastings Premium Filters' new LF1000 is up to the challenge with both the high capacity and extreme efficiency these new oils and engines must have in order to function as designed.



- 2-STAGE BY-PASS FILTRATION**  
Dual element design provides optimum efficiency, exceeding OE requirements
- BY-PASS ELEMENT**  
Allows superior efficiency removing targeted particle size
- FULL-FLOW ELEMENT**  
Less restrictive. 100% of the oil is continuously filtered
- CENTERTUBE**  
Improved louvers allow greater flow
- HIGHLY ENGINEERED MEDIA**  
Provides lower cold-start restriction at startup
- 5 PLEAT STABILIZERS**  
Provide structural durability

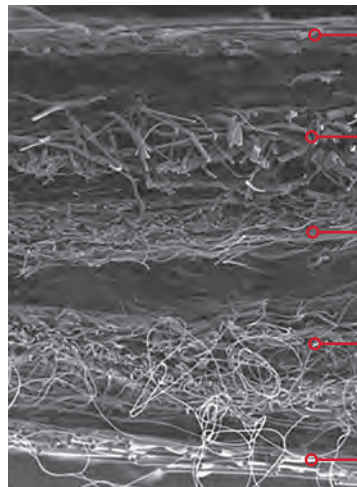
## THE FUTURE OF FILTRATION

Designed for durability and performance, the LF1000 dual-flow lube filter with highly engineered media is taking filtration into the future for the next generation of engines. The LF1000 delivers superior contaminant removal efficiency and holding capacity to extend engine life.

## THE NEXT GENERATION OF HIGHLY ENGINEERED LAYERED MEDIA

As part of CLARCOR, one of the world's largest filter manufacturing companies, Hastings' research, development and production capabilities are unsurpassed in the industry.

The LF1000 is the first lube filter to take advantage of new media technology developed at CLARCOR's Innovation Center. This next generation of highly engineered media, coupled with precise design, makes the innovative LF1000 the most effective filter, delivering maximum efficiency and durable performance.



- SCRIM LAYER**  
Provides structural durability
- CAPACITY LAYERS**  
Allows for less restriction and maximum flow
- EFFICIENCY LAYER**  
Traps damaging contaminants of all sizes
- SCRIM LAYER**  
A second scrim layer enhances durability

# THEIRS VS OURS THE INSIDE STORY

Hastings LF1000 is built tough for durability and performance. You can see for yourself, the LF1000 is a quality filter with a design that is structurally superior to the OE.

The wire backed, double scrim synthetic layered media, along with five pleat stabilizers, ensure structural integrity, to last through complete recommended service intervals for maximum protection and longer service life.

## OE FILTER ELEMENT



Irregular construction may lead to inconsistent capacity and performance

## HASTINGS LF1000

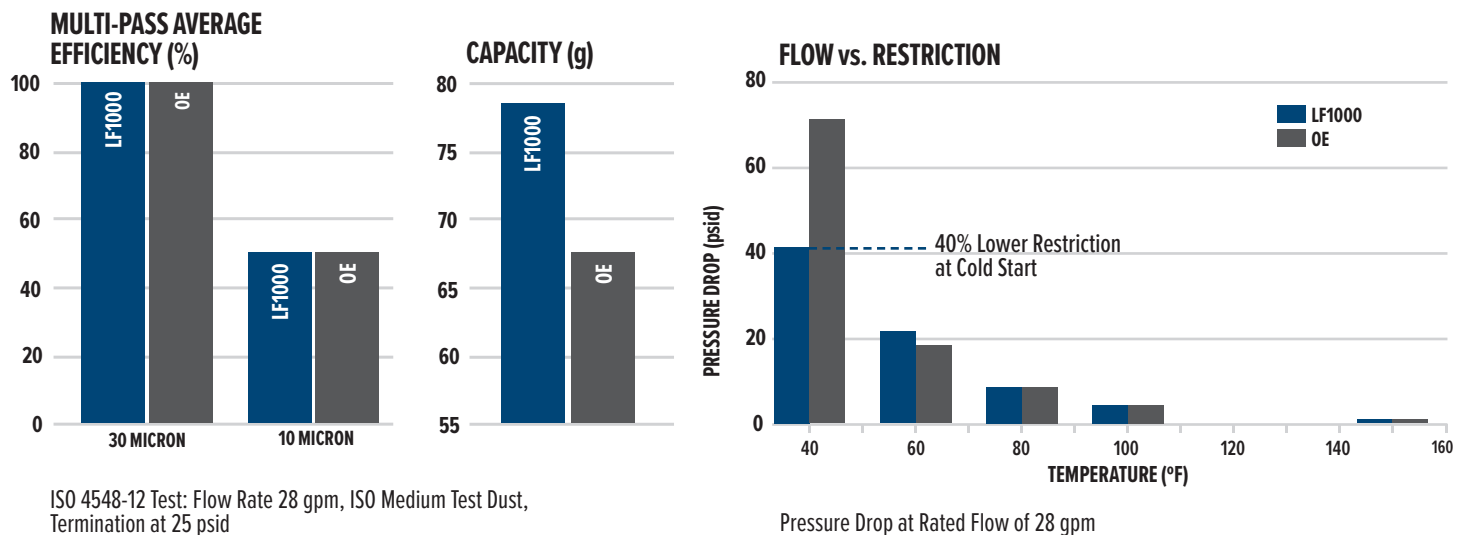


Precise pleating and structural reinforcement ensure consistent capacity and durability

# CONSISTENT CONSTRUCTION MEANS CONSISTENT RELIABILITY

Both the OE and the LF1000 capture approximately 99% of contaminants at 30 microns or larger and 50% of contaminants 10 microns. Standardized test data shows the LF1000 has 17% longer life compared to the OE.

At 40°F (4°C) the LF1000 has 40% lower cold-start restriction compared to the OE, meaning more oil is flowing to vital engine components at startup.



# SUPERIOR PROTECTION FOR CUMMINS ENGINES

## RECOMMENDED SERVICE INTERVALS

<b>Light-Duty</b>	> 7 mpg (3 km/L)	Replace every 35,000 miles (56,000 km)
<b>Medium-Duty</b>	6-7 mpg (2.5 - 3 km/L)	Replace every 25,000 miles (40,000 km)
<b>Heavy-Duty</b>	< 6 mpg (2.5 km/L)	Replace every 15,000 miles (24,000 km)

- Higher efficiency to better protect your engine throughout the entire service interval
- Lower cold-start restriction to enhance oil flow to vital engine components at startup
- Unsurpassed structural integrity for maximum protection under the most extreme conditions

Refer to engine owner's manual. Always follow OE recommended oil grade and oil change intervals

## CROSS-REFERENCE GUIDE

HASTINGS	OE	DONALDSON	FLEETGUARD	FRAM	LUBER-FINER	WIX
<b>LF1000</b>	4367100	P559000*	LF14000NN	PH8691*	LFP9001*	57746*

\* LF1000 (Upgraded Version)

## APPLICATION GUIDE

Cummins 2010-16 ISX15 and 2017-on X15 engines

For complete engine filter listings visit [www.hastingsfilter.com](http://www.hastingsfilter.com)

PROUDLY MADE  
IN THE USA 