Controlled Release Coolant Filters

Hastings’ patented Controlled Release Coolant Filters contain Supplemental Coolant Additives (SCAs) to protect diesel engine cooling systems for one year or 150,000 miles (240,000 kilometers). Contact your Hastings Premium Filters Distributor today and gain control of your Cooling System.
overcharging the system, leading to additive drop out. The other extreme is not releasing enough additives near the end of a maintenance period, leaving the system vulnerable to cavitation erosion and corrosion.

With the Hastings product, all coolant is conditioned with coolant additives prior to being filtered. This ensures that no undissolved particles from the chemical mass can enter the system. It also ensures that the flow control orifice cannot be plugged. The competitive products have a flow pattern that routes the coolant through the filter element first, leaving the possibility that solids could plug the flow control orifice. This would disable the filter, stopping the SCAs from entering the system and leaving engine components unprotected.

Hastings’ media is a high capacity synthetic media designed to trap contaminants and maintain its structure through a long service interval. The high efficiency synthetic media used in some competitive products has very low capacity to hold contaminants before plugging, leaving the system vulnerable. Once the filter plugs, the flow stops and no SCAs are released to protect the system.

The media used in other primary competitor products is cellulose. On our simulated service laboratory test stand, the media in the filter became soft and restrictive, significantly reducing the flow through the filter. Without flow, the SCAs contained within the filter cannot be released.

One competitive long life design relies on corrosive coolant to begin the process that releases the SCAs into the coolant system. In this process, a magnesium plate is in contact with a copper center tube that holds the SCA. When the coolant becomes corrosive enough, a reaction between the magnesium plate and the copper center tube occurs. As the magnesium corrodes, the SCAs are exposed to coolant and begin to dissolve into the system. It takes considerable time before the magnesium plate corrodes enough to allow the SCAs to enter the system. The cooling system is left corrosive and unconditioned for this long time interval.

There is no correlation between the corrosion of the magnesium plate and cavitation erosion of wet sleeve liners. A system can have low enough SCA levels to promote cavitation erosion in wet sleeve liners, and still not be corrosive enough to release the SCA chemical in the filter. This is why the competitor insists that you test your coolant additive level at every oil change interval and add liquid SCAs to the system.