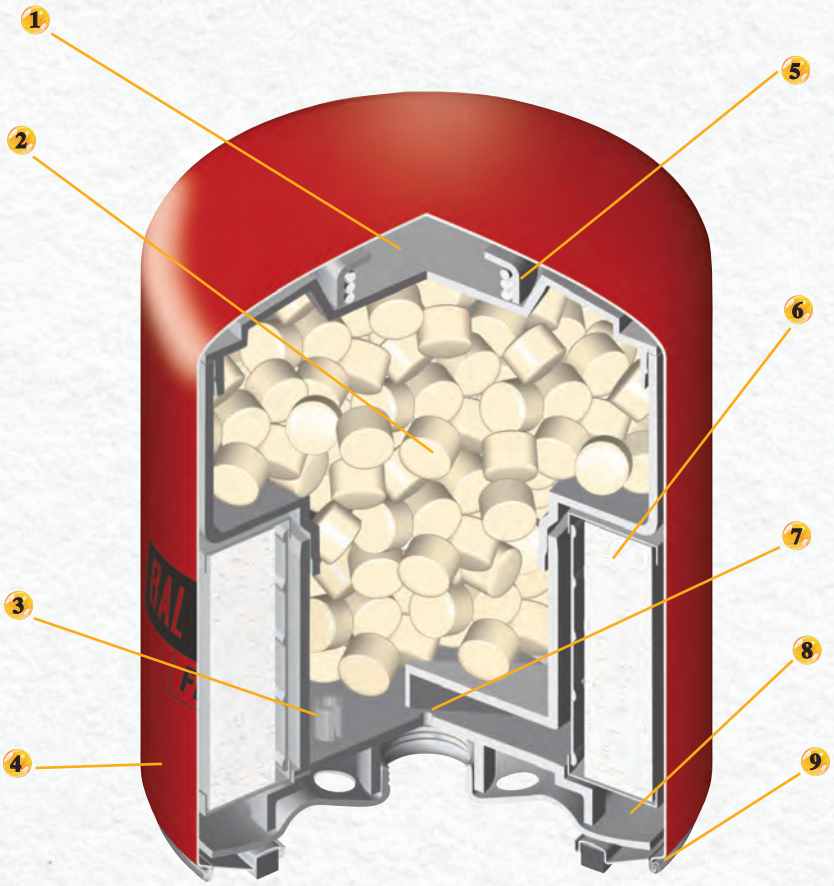
Controlled Release Coolant Filters

1. **Injection Molded Plastic Chamber** contains Controlled Release Coolant Pellets, which are located upstream of the filter media.
2. **Controlled Release Coated Pellets** diffuse SCAs into the system (when exposed to heat and coolant flow), which are then filtered, prior to entering the engine. BTE and BTA PLUS Supplemental Coolant Additives provide the best protection from cavitation, scale, rust and other forms of corrosion, while reducing the potential for water pump seal leaks.
3. **SCA Diffusion Control Orifice** meters diffusion of SCA chemical into the coolant flow (to allow SCAs to be released in the amount required to maintain proper system balance) for up to 150,000 miles (240,000 kilometers) of service.
4. **Epoxy Coated Housing** reduces the possibility of corrosion during extended service intervals.
5. **Spring Protector** isolates dissimilar metals to prevent corrosion.
6. **Synthetic Media** is designed to withstand heat and degradation from long-term exposure to coolant flow. High capacity and efficiency allows media to trap contaminants that could reduce system efficiency.
7. **Flow Control Orifice** meters flow of the coolant through filter.
8. **Heavy-Duty Baseplate** made from stamped steel, is designed to withstand extended service intervals.
9. **Double-Rolled Tuck Lock Seam** prevents coolant leaks.

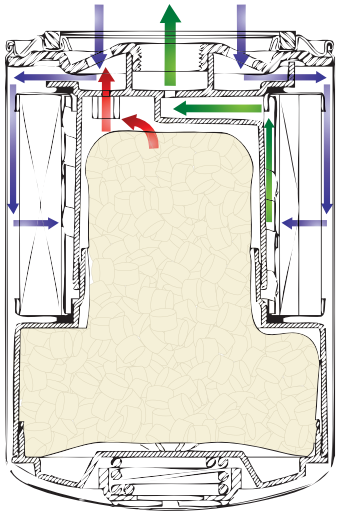


Baldwin Filters patented Controlled Release Coolant Filters contain Supplemental Coolant Additives (SCAs) to protect diesel engine cooling systems for one year or 150,000 miles (240,000 kilometers). Contact your Baldwin Filters Distributor today and gain control of your Cooling System.

BALDWIN FILTERS®

Controlled Release Coolant Filters Outperform Competitors

Baldwin Controlled Release Coolant Filter Flow Schematic



Inlet Flow **Outlet Flow** **Diffusing Chemical**

Baldwin Filters Controlled Release Coolant Filters utilize a patented process that allows Supplemental Coolant Additives (SCAs) to be released into your cooling system only when heat and cooling flow are present. Our field tests show that the supplemental additives are released at an even rate. This is important because competitors' filters can "dump" all the additives at once, potentially 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 Baldwin 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.

Baldwin's 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 cooling system. In this process, a magnesium plate is in contact with a copper centertube that holds the SCA. When the coolant becomes corrosive enough, a reaction between the magnesium plate and the copper centertube 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 corrosion of wet sleeve liners. A system can have low enough SCA levels to promote cavitation corrosion in wet 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.

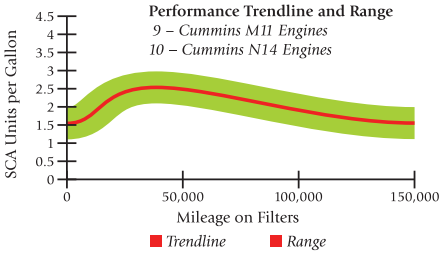
Test Prove Performance Superiority

BW5200 FIELD TESTING

Performance Trendline and Range

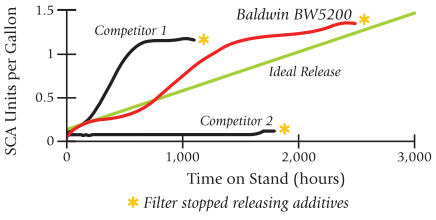
9 – Cummins M11 Engines

10 – Cummins N14 Engines



SIMULATED SERVICE TEST

Release Patterns with No SCA Pre-Charge



BALDWIN FILTERS® BALDWIN

4400 East Highway 30 ▪ P.O. Box 6010
Kearney, Nebraska 68848-6010
Phone: (308) 234-1951 ▪ Toll Free: (800) 822-5394
Fax: (800) 828-4453 ▪ Int'l Fax: (308) 237-9769
Internet: www.baldwinfilter.com

TS 16949
ISO 9001
QUALITY SYSTEM CERTIFIED

Africa
Baldwin Filters, Pty. Ltd.
Ph: 27-21-534-0029
Email: africa@baldwinfilter.com

China
CLARCOR Filtration (China) Co., Ltd.
Ph: 86-536-2606308
Email: china@baldwinfilter.com

Middle East
Baldwin Filters
Ph: (308) 237-9782
Email: middleeast@baldwinfilter.com

Southeast Asia & Pacific Rim
Baldwin Filters
Ph: (308) 233-9226
Email: southeastasia@baldwinfilter.com

Australia & New Zealand
Baldwin Filters Aust., Pty. Ltd.
Ph: 61-3-9353-7300
Email: australia-newzealand@baldwinfilter.com

Europe
Baldwin Filters N.V.
Ph: 32 3 328 18 88
Email: europe@baldwinfilter.com

Morocco
Baldwin Filters Morocco
Ph: (212) 522 70 00 25
Email: morocco@baldwinfilter.com

UK & Ireland
Baldwin Filters Ltd.
Ph: 44-1268-888170
Email: uk-ireland@baldwinfilter.com

Central & South America
Baldwin Filters
Ph: (308) 233-9220
Email: latinamerica@baldwinfilter.com

Mexico
Baldwin Filters, S. de R. L. de C. V.
Ph: 52-442-227-3400
Email: mexico@baldwinfilter.com

Russia
Baldwin Filters
Ph: (308) 237-9749
Email: russia@baldwinfilter.com

Form 337 (R 3/15)

Printed in U.S.A.