

BG Fuel/Air Induction System Service

THE PROOF



BG Fuel injection System Cleaner, Part No. 210

Fuel deposits that build up on the injector pintle will interrupt proper fuel atomization. This leads to increased exhaust emissions and driveability problems such as hesitation, surging, misfire and loss of power.

BG Fuel Injection System Cleaner is a specially formulated blend of solvents, high molecular-weight dispersants and deposit control additives which will quickly, effectively and safely clean fuel injectors and help remove upper engine deposits. Catalytic converter and oxygen sensor safe.



A fouled fuel injector sprays fuel in irregular streams, resulting in improper combustion of fuel and increased exhaust emissions.



After service with BG Fuel Injection System Cleaner, Part No. 210, the same fuel injector is functioning properly. It mists fuel so that the fuel/air mixture is properly balanced and combustion of fuel is thorough.

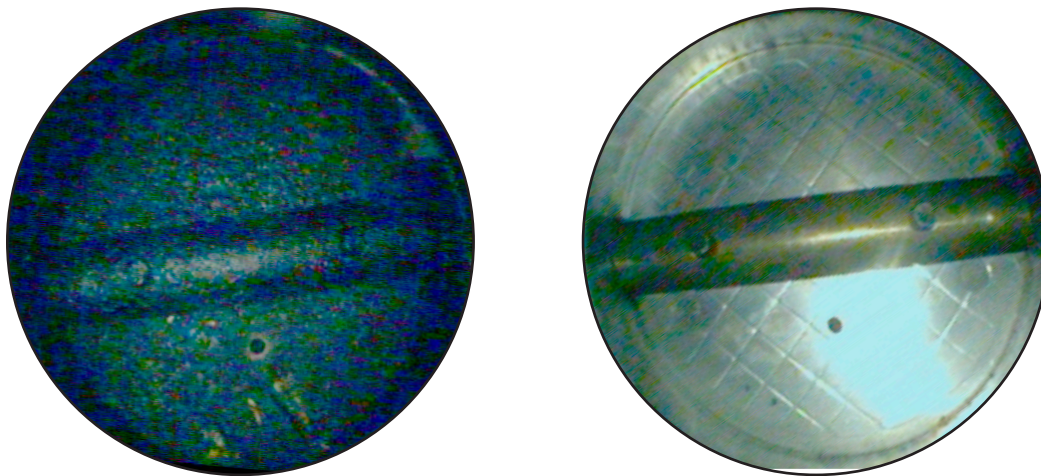
BG Fuel Injection System Cleaner, Part No. 210

BG Air Intake System Cleaner, Part No. 206

The correct balance of fuel and air entering the combustion chamber is crucial to engine performance.

The air throttle body assembly controls the air flow into the intake ports where the air mixes with atomized fuel and swirls into the combustion chamber. Heavy deposits build up on the back side of the throttle plate, around and behind the plate and in the idle air control.

BG Air Intake System Cleaner is an extremely effective solvent/degreaser formulation that quickly removes sticky, heavy deposits which accumulate in the air throttle body assemblies and plenums of modern, multi-port fuel injected engines. Cleanup reduces harmful exhaust emissions and restores engine performance. Catalytic converter and oxygen sensor safe.



Throttle plate before (left) and after (right) service with BG Air Intake System Cleaner, Part No. 206.



BG Air Intake System Cleaner, Part No. 206

BG 44K® Power Enhancer®, Part No. 208 100,000-mile Fleet Test

BG 44K® Power Enhancer® safely, rapidly and thoroughly removes engine deposits in combustion chambers, intake manifolds, ports and on valves. It restores flow in fuel injectors and cleans the entire fuel system. BG 44K® Power Enhancer® improves fuel economy and reduces exhaust emissions. Catalytic converter and oxygen sensor safe.

A major West Coast taxi cab fleet used BG 44K® every 7,500 miles for 100,000 miles in 3.1L Chevy Lumina. The photos below were taken after the completion of the 100,000 miles and clearly demonstrate that BG 44K® kept the valves and ports free of deposits.



BG 44K®, Part No. 208



Shiny, bare metal in port area after using BG 44K® for 100,000 miles.



Intake valves after using BG 44K® for 100,000 miles.

BG 44K[®] Power Enhancer[®] Part No. 208 One Tank Clean-Up Results

IVD = Intake Valve Deposit
CRC Rating = Rating scale 1-10, 10 is best



BG 44K[®] Part No. 208

2.0L I-4 Dodge Neon



Before
IVD Mass: 223 mg
CRC Rating: 7.7



After BG 44K[®]
IVD Mass: 12 mg (95% clean-up)
CRC Rating: 8.9



Before
IVD Mass: 43 mg 125 mg
CRC Rating: 8.8 8.5



After BG 44K[®]
2 mg (95% clean-up) 3 mg (98% clean-up)
9.8 9.8



Before
IVD Mass: 126 mg 190 mg
CRC Rating: 8.0 8.0



After BG 44K[®]
8 mg (94% clean-up) 28 mg (85% clean-up)
9.8 9.2

BG 44K[®] Power Enhancer[®], Part No. 208 One Tank Clean-Up Results

IVD = Intake Valve Deposit

CRC Rating = Rating scale 1–10, 10 is best



3.1L Chevy Lumina



Before

IVD Mass: 75 mg

CRC Rating: 8.8



After BG 44K[®]

IVD Mass: 35 mg (53% clean-up)

CRC Rating: 9.5



Before

IVD Mass: 136 mg

CRC Rating: 7.8



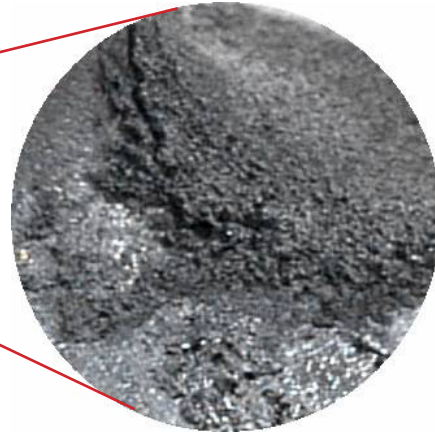
After BG 44K[®]

IVD Mass: 76 mg (44% clean-up)

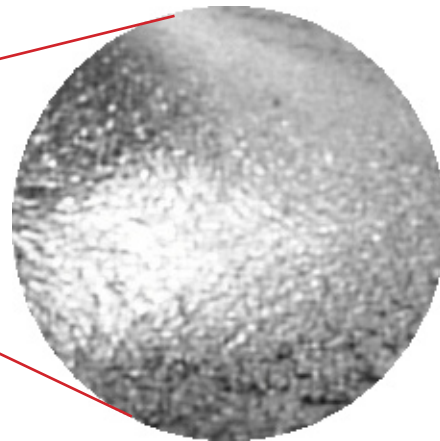
CRC Rating: 8.8

BG 44K[®], Part No. 208

BG 44K[®] Power Enhancer[®], Part No. 208 One Tank Clean-Up Results



Before



After BG 44K[®]



BG 44K[®], Part No. 208

BG 44K[®] Power Enhancer[®], Part No. 208 One Tank Clean-Up Results



Combustion chamber squish area before.



Same combustion chamber squish area after BG 44K[®].



BG 44K[®], Part No. 208

BG 44K[®] Power Enhancer[®] Part No. 208 Chrysler 2.2L Test Vehicle Filter Flow Rate Measured for One Gallon of Fuel

- New Filter Flow Time: 1 minute, 32 seconds
- Dirty Filter Flow Time: 3 minutes, 0 seconds
- After BG 44K[®] cleaning Filter Flow Time: 1 minute, 25 seconds



Fuel filter before.



Fuel filter after BG 44K[®].

Catalytic Converter Clean-Up

Dirty-Up Phase:

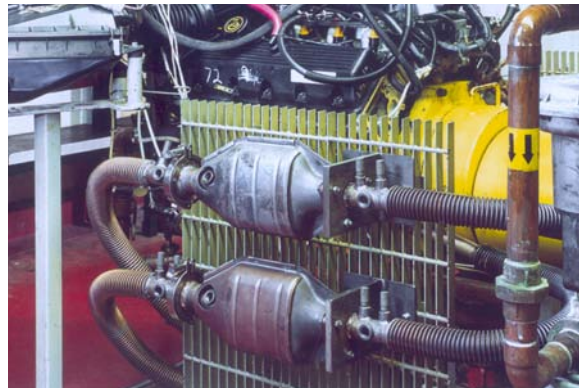
Hydrocarbons: 46% Conversion

Carbon Monoxide: 75% Conversion

Clean-Up Phase:

Hydrocarbons: 66% Conversion

Carbon Monoxide: 94% Conversion



BG 44K[®] Part No. 208

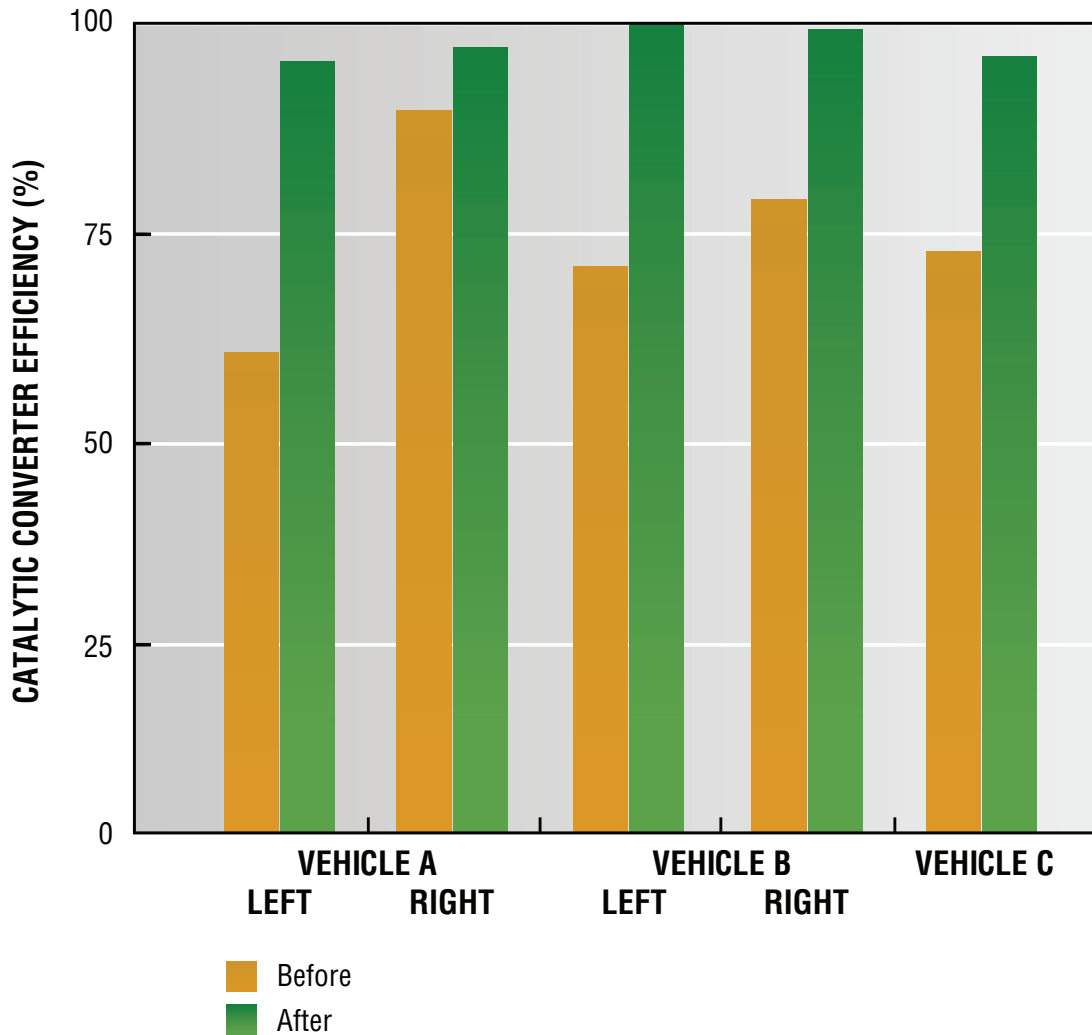
BG 44K[®] Power Enhancer[®], Part No. 208 Catalytic Converter Clean-Up

Catalytic converter efficiency readings taken by engine scan tool before and after one tank clean-up with BG 44K[®].



**BG 44K[®],
Part No. 208**

**CATALYTIC CONVERTER EFFICIENCY
BEFORE AND AFTER ONE TANK CLEAN-UP WITH BG 44K[®]**



BG Fuel/Air Induction System Service Before and After Deposit Removal Results

The chart below provides evidence that engine performance and fuel economy are positively improved by deposit removal. Before and after measurements show when an engine is experiencing power loss and increased fuel consumption as a result of fuel deposits.

“Load” when used on this chart, is a term that helps explain the unnecessary stress that is placed on an engine when power demands are not met. Increased load eventually over-works the entire fuel delivery system and wastes fuel in the process. Decrease the load by cleaning the fuel system and allowing it to work more efficiently. This cleaning will decrease the volume of fuel being pulsed, which translates into using less fuel to do the same amount of work (load).

Referencing the “Decrease Load” column, we can see a decrease in engine power required for operation after the service is performed. Referencing the “Decrease Injector Open” column, we can see an improvement in injector pulse width. Both of these measurements reflect the positive effects of fuel injector clean-up. The “INJPW B” (injector pulse width) and “INJPW A” (injector pulse width) columns compare dirty injectors to clean injectors. The lower the number, the less time required to move an equal volume of fuel through the injector. This allows for greater system efficiency and ensures an effective fuel spray coming through the injectors.

Before and After Deposit Removal Results for BG Fuel/Air Induction Service

Make/Yr	Miles	Load Before	Load After	INJPW B in ms	INJPW A in ms	IAC/Throt B	IAC/Throt A	Decrease Load	Decrease Injector Open
96 Taurus	145,763	19%	6%	4.2	3.1	39%	19%	68%	26.19%
03 Camry	89,245	22%	11%	3.3	2.8	10%	5%	50%	15.15%
01 Chev 1500	120,378	26%	13%	5.1	4.3	49%	16%	50%	15.69%
07 Cadillac STS	16,868	18%	7%	4.8	4	13%	9%	61%	16.67%
99 Escalade	149,657	24%	12%	5.5	4.8	42%	23%	50%	12.73%