



TECHNOLOGY THAT TREATS THE METAL TO BRING  
AND KEEP VEHICLES PERFORMING AT PEAK LEVELS



## What is Cerma STM-3?

The Worlds Only Self-Cleaning Engine System

Cerma STM-3 is a revolutionary technology, which is added to the engine oil. Once added, the vehicle will restore engine performance, increase horsepower and torque, prolong operational life, and continuously clean vehicle.

Cerma STM-3 is applicable to all vehicles including cars, trucks, vans, semi-trucks, and industrial and commercial equipment.

Straight from the start you will see, hear and feel the difference using Cerma STM-3. By the time the "Cerma" process is complete, your engine will be at its peak performance, have that extra horsepower, run quieter and smoother, benefit from longer oil life and protection, and increased fuel economy.

Best of all, Cerma STM-3 is self-cleaning: meaning that after Cerma STM-3 is added, the engine will continuously clean itself, thus maintaining peak operational performance.



## How Cerma STM-3 Works

Cerma STM-3 takes a 4-prong approach to increasing engine performance and enhancing vehicle. Performance in any engine is dependent on the effectiveness of the lubrication. The better the lubrication works, the better an engine can perform to its maximum potential. The areas in which Cerma STM-3 increases engine lubrication are:

1. **CLEAN:** Removes "DIRT" inside the engine
2. **RESTORE:** Restores engine to peak performance
3. **LUBRICATE:** Increases the LUBRICATION of the entire engine
4. **PROTECT:** Worlds only SELF-CLEANING engine catalyst

**Removes Dirt:** Cerma STM-3 removes carbon deposits, lacquer build up and dirt accumulation, which occurs when oil circulating throughout the engine forms a thin, insulating layer on the walls of the engine, thereby reducing engine efficiency and performance. Dirt accumulation is caused by too much engine oil getting in the combustion chamber, usually from inefficient valve stem seals, valve guides, or piston rings. Cerma STM-3 works as an emulsification agent, cleaning the walls inside the engine of all the accumulated carbon and lacquer, and pooling it into the engine oil when the next oil change will remove them.

**Restore:** Cerma STM-3 will restore the engine to peak operational performance by reconditioning worn seals, and re-seating the piston rings. Cerma STM-3 will also increase the oil pressure and reduce blow-by and oil consumption that has deteriorated over the life of the engine.

**Lubrication:** Proper lubrication is continuously necessary for the engine to run at peak performance. Oil does not stay in any part of the engine; it continues to flow through the entire system. Cerma STM-3 delivers greater lubricity to the engine by allowing the oil to flow freely throughout the entire system. In addition, Cerma STM-3 increased lubricity allows the motor to run cooler thereby increases the life of the engine, lower maintenance costs, and extend the life of the engine.

**Self-Cleaning:** The proprietary Cerma STM-3 formulation is made up of nano molecules which form a thin micron coating inside of the entire engine. This coating continuously moves the motor oil through the system and constantly cleans the oil by not allowing carbon, lacquer or dirt to adhere to the engine walls. In addition, Cerma STM-3 forces the carbon particles to agglomerate into large enough size so that they are caught in the engines filtration system. This produces a self-cleaning system without dirt, running at maximum performance with maximum lubrication efficiency.



## What Cerma does in Equipment

Cerma STM-3 nano molecules are non-petroleum based ions with an extremely high affinity towards metal surfaces. Cerma STM-3 molecules are able to penetrate residual gum, varnish, and carbon buildup on surfaces without the use of solvents.

After Cerma STM-3 penetrates the buildup, it forms a ceramic shield that protects the metal, and the metal surface no longer has cracks or pores for the "dirt" particulates to latch onto. Cerma STM-3 then penetrates the metal surfaces, and once set, it releases the varnish and carbon buildup back into the lubricant stream to be cleaned by the inline and/or bypass filtration system.

Cerma STM-3 starts to activate at normal equipment temperatures. The higher the temperature, the faster the activation time; the more hours of constant operation, the faster Cerma STM-3 works and the final results become apparent.

## Applications for Cerma STM-3

- Engines
- Transmissions
- Hydraulic systems
- Fuel pumps and injectors
- Drivetrains, Trans-Axles, Hubs and Transfer cases
- Air conditioning systems
- Power steering systems



## Does Cerma affect Warranty?

No. Cerma STM-3 only treats the metal and is not an additive that mixes with any of the fluids. Cerma STM-3 is a non-hazardous, submicronic material. By it's nature, Cerma STM-3 can only positively affect the metal surface and any type of seal material.

## Cerma STM-3 will Significantly Reduce Vibration and Friction in Engines and Equipment

Benefits from reduction of friction include:

- More Power to Motorized Equipment (increased rpm or improved energy output efficiency at the same rpm)
- Cooler operation in all engines, transmissions, gearboxes, sliding devices and bearing assemblies (testing yields a 45°F average reduction in fluid temperatures)
- Longer Equipment Life
- Significantly Longer Oil Service Life
- Protection against Carbon and Lacquer Buildup allowing for improved Piston Sealing and Fuel Burn



# LOOKING FOR MONEY SAVING PROTECTION FOR YOUR ENGINE? CERMA STM-3 PROVIDES THE MAXIMUM PROTECTION POSSIBLE IN A MOTOR OIL OR TREATMENT... ALL WHILE RESTORING YOUR ENGINE BACK TO PEAK PERFORMANCE!

## Benefits in the Engine

Many time, parts and equipment that seem broken are simply heavily coated in lacquers, preventing optimal function. Cerma STM-3 will remove these lacquers and carbon deposits, allowing the parts work as intended and bringing the engine back to life.

### **Cerma STM-3 Engine will:**

- Clean, Seal and Protect the metal surfaces of bearings, pistons, cams, crankshaft, lifters, and all other internal moving metal parts. "One Time" Treatment!
- Protect Engine against Friction and related Heat and Wear
- Reduce Operating Temperatures
- Increase Horsepower and Torque
- Extend the Life of Lubricated Engine Parts
- Reduce Oil Consumption, Eliminate Oil Burning
- Protect New, Revive old
- Increase Compression
- Reduce Cold Start Problems
- Increase Fuel Economy Potential



## Benefits in the Fuel System

Cerma STM-3 lubricates and protects the upper engine, prevents costly downtime, restores performance, cleans fuel tank, cleans injectors, cleans fuel lines and provides unmatched protection.

Cerma STM-3 Fuel Treatment is a continuous use treatment. Why a continuous treatment for the fuel system? Unlike the engine oil, both gasoline and diesel fuel encapsulates the lubrication inside the fuel molecules (within the hydrocarbon matrix). Therefore, when the injectors spray the fuel into the system, the lubrication burns off along with the fuel.

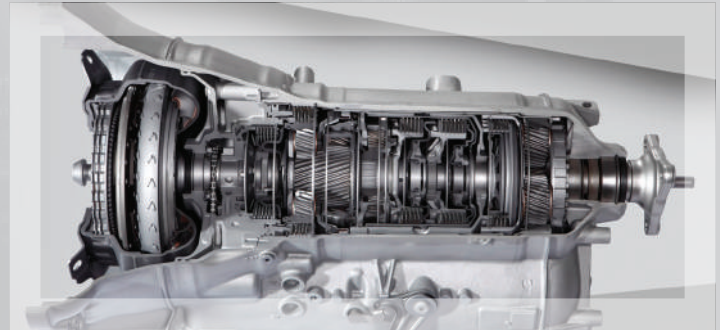
Cerma STM-3 releases the lubrication trapped inside the fuel, and allows the fuel system to properly lubricate.

In addition, Cerma STM-3 Fuel Treatment adds a "SiC" component to the system which lubricates the upper engine, cleans the fuel system, removes water and moisture, conditions the fuel pump, cleans the fuel injectors and fuel tank, and acts as an octane booster.

For maximum fuel savings and protection, use with Cerma STM-3 Engine Treatment.

### **Advantages**

- Octane / Cetane Booster
- Upper Cylinder Metal Treatment
- Fuel System Water Remover and Cleaner
- Fuel Pump Conditioner
- Fuel Injector Cleaner and Conditioner
- Fuel Tank Cleaner



## Benefits in the Transmission

### **Heat and Friction**

One of the biggest enemies of a transmission is heat. The amount of heat present in the system will normally dictate the life of that transmission. Adding Cerma STM-3 Transmission significantly reduces the heat and friction within the equipment. In addition, Cerma STM-3 Transmission addresses the extreme pressure (EP) areas, such as planetary and worn gear systems, bushings, bearings, and shafts. By penetrating the metal surfaces and embedding a thin 1 to 6 micron ceramic "SiC" coating, the Cerma process drastically reduces internal friction, leading to a reduction in oil temperature, increased transmission efficiency, and prolonged operational life.

### **Valve Body Operation**

In many cases, professional transmission builders have found that Cerma STM-3 Transmission frees the valve body and maximizes performance with no recurrence of sticking or intermittent hang-ups.

### **Governors**

As most builders are aware, there are certain governor systems that have unique tendencies to hang up for no apparent reason. Two reasons these hang-ups occur are contaminants and microscopic spiking of the metal due to electrolytic corrosion of the metal. Cerma STM-3 Transmission will displace contaminants and smooth and seal metal surfaces with ceramic "SiC" protection, removing electrolytic spikes and preventing their formation.

### **Cerma STM-3 Transmission will:**

- Lower Operating Temperatures
- Free Valve Body for Maximum Performance
- Eliminate Governor Hang-Ups
- Keep Oil Passages, Orifices, and Ball Checks Clean and Fully Operational
- Extend the Service Life of the Transmission and Fluid
- Reduce Metal Particle Fallout and Debris
- Remove Varnish Buildup
- Eliminate Lock-up Chatter in the Torque Converter
- Ensure Proper Shifting
- Restore Performance and Fixes many Transmission Issues
- Stop Slippage, Hesitation, and Rough Shifting in Worn Transmissions
- Eliminate most Seal Leaks

Ideal for all uses including auto, diesel truck, motor homes, and commercial vehicles and equipment; for use in both automatic and manual Transmissions. Excellent preventative maintenance and extends needed protection to planetary gears.



## CERMA HAS BEEN FORMULATED TO HELP IN THE ENGINE AS WELL AS IN THE TRANSMISSION, POWER STEERING, DIFFERENTIAL, GEARBOX, AND FUEL SYSTEM; RESULTING IN INCREASED HORSEPOWER AND TORQUE!

### Cerma STM-3 Improves Horsepower and Torque

The improved lubricating properties of Cerma STM-3 were demonstrated by comparing the horsepower generated by an automobile operating without Cerma STM-3 versus the horsepower generated by the same automobile engine with Cerma STM-3 added to the engine oil.

The test data below represents the horsepower generated by a 1998 Jeep Grand Cherokee Laredo ("Jeep") with a 4.0 liter, 6-cylinder engine and measured using a Dynojet Model 248C Dynamometer.

The Jeep received an oil change with five quarts of 10W30 standard motor, and its horsepower was measured prior to the addition of Cerma STM-3. The automobile was tested from 0 to 5200 RPM with measurements taken at increasing 250 RPM intervals. The absolute barometric pressure was recorded as 20.92 in. Hg (about 100kPa) with a vapor pressure of 0.61in. Hg (about 2kPa). The intake air temperature was measured at 88.80F (31.60C) and the gear ratio was recorded as 48 RPM/MPH. An SAE correction factor of 1.01 was used to convert the measured horsepower to a corrected horsepower.

A second test was then performed on the same automobile by adding 2 ounces of Cerma STM-3 Engine Treatment to the motor oil, resulting in a Cerma concentration of 0.58%.

The measured and corrected horsepower of the Jeep at various engine speeds, operating with lubricant alone versus the addition of Cerma STM-3 added to the oil, is detailed below in Table 1.

Cerma STM-3 Engine Horsepower Test - Table 1				
Engine RPM	Measured HP without Cerma STM-3	Corrected HP without Cerma STM-3	Measured HP with Cerma STM-3	Corrected HP with Cerma STM-3
4500	138.5	139.5	142.7	144.2
4750	139.0	139.9	139.9	141.2
Average	125.4	126.3	133.4	134.7
Maximum	139.0	139.9	142.7	144.2

In comparing the data in Table 1, it can be seen that the corrected horsepower increased by an average of 8.4 horsepower with the addition of Cerma STM-3. The maximum horsepower achieved in the tests using Cerma exceeded the maximum horsepower without Cerma by 4.3 horsepower. The test measurement of increased horsepower resulting from use of Cerma supports the conclusion that use of Cerma provides better lubrication of the engine parts.

Table 2 represents another test on a 2006 Ford F-150 Crew Cab, with only the Engine Treatment being added.

Cerma STM-3 in Engine Only - Table 2				
Engine RPM	Measured HP without Cerma STM-3	Measured HP with Cerma STM-3	Measured Torque without Cerma STM-3	Measured Torque with Cerma STM-3
4758	220.95	229.6		
4023			262.7	276.5

Table 3 shows the results when Cerma was added to the transmission, differential and the fuel.

Cerma STM-3 in Engine, transmission, Differential and Fuel - Table 3				
Engine RPM	Measured HP without Cerma STM-3	Measured HP with Cerma STM-3	Measured Torque without Cerma STM-3	Measured Torque with Cerma STM-3
4758	220.95	239.6		
4023			262.7	
2846	Max Torque reached 1,177 rpm less with Cerma STM-3			283.3

When added to only the engine, Cerma increased the horsepower by 8.65, and with the addition of the transmission, differential and fuel, Cerma resulted in another 10 horsepower gain for a total gain of 18.65 horsepower! Torque was also increased by 20 lbs/ft in testing and the max torque was reached at 1,177 rpm less!



### Benefits in the Power Steering

Cerma STM-3 Power Steering utilizes "SiC" technology to form a micro-ceramic seal on all metal parts within the steering assembly to protect against heat, friction, and the formation of performance degrading sludge and abrasive carbons.

#### Cerma STM-3 Power Steering will:

- Clean, Seal, Lubricate, and Restore Performance
- Lower Operating Temperatures and Reduce Friction
- Seal Leaks and Stop Rack and Pinion Problems
- Improve Steering Response and Feel
- Quiets Noisy Power Steering Pumps
- Recondition Rack Piston and Cylinders
- Help return smooth and easy operation to unit\*

\*If you are experiencing difficulty with the unit, we recommend flushing the unit thoroughly prior to the addition of Cerma STM-3.



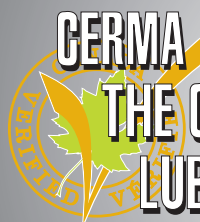
### Benefits in the Differential

The differential is designed to compensate for the difference in distance the inner wheels and outer wheels travel as the vehicle goes around a corner. The differential oil lubricates the ring and pinion gears that transfer power from the driveshaft to the wheel axles. Maintaining the differential is just as important as changing your engine's oil, and for the same reason. Metal-to-metal contact wears down surfaces and creates heat from friction, which inevitably weakens the gears and leads to failure.

Cerma STM-3 significantly reduces wear on gears and rolling elements, lowers operating temperatures, and prolongs fluid life.

#### Cerma STM-3 Gear Treatment for Differentials will:

- Treat the Metal Sub-Surfaces of the Gears
- Quiets Noisy Drivetrains
- Optimize Performance for more Power and Fuel Savings
- Extend the Life of Lubricated Differential Parts and Fluids



**CERMA PERFORMANCE CLAIMS HAVE BEEN REVIEWED BY THE GOVERNMENT. WE ARE PROUD TO BE THE ONLY LUBRICANT EVER TO BE ETV PROGRAM VERIFIED**

## ASM Emission Tests

A comparison of the emissions of automobiles with and without Cerma STM-3 added to the engine oil was performed using the acceleration simulation mode (ASM) emission test for the State of California. The test results, detailed in Tables 4 and 5 below, provide the measured exhaust concentrations of hydrocarbons (HC), carbon monoxide (CO), and nitrogen oxide (NOx) gases, which are generally considered harmful.

Table 4 - 1996 GMC Yukon (133,321 miles)			
Emission Type	Before Cerma STM-3 added at 2110 RPM	After Cerma STM-3 added at 2149 RPM	Total Reduction by adding Cerma STM-3
Hydrocarbon (HC)	68 ppm	3 ppm	-95.60%
Carbon Monoxide (CO)	0.54%	0.04%	-92.60%
Nitrogen Oxide (NOx)	377 ppm	107 ppm	-71.60%

Test results demonstrate that the use of Cerma significantly reduces the

concentration of hydrocarbons, carbon monoxide, and NOx! These results support the conclusion that the use of Cerma improves engine efficiency, which thereby reduces emissions.

Table 5 - 2000 Jeep Grand Cherokee Laredo (27,845 miles)			
Emission Type	Before Cerma STM-3 added at 1451 RPM	After Cerma STM-3 added at 1440 RPM	Total Reduction by adding Cerma STM-3
Hydrocarbon (HC)	7 ppm	0 ppm	-100.00%
Carbon Monoxide (CO)	0.04%	0.00%	-100.00%
Nitrogen Oxide (NOx)	131 ppm	68 ppm	-48.10%

## Treatments vs. Oil

Cerma Treatments and Cerma Oil/Fluids work INDEPENDENTLY of each other, and can be used separately in ALL cases. But for continued maximum performance and to achieve full benefits of Cerma's self-cleaning properties, treatments and oils work best when used together.

Why? Cerma Treatments do the initial cleaning work and treat the metal using Cerma's SiC technology. After treatment, switching to Cerma oils/fluids continues the SiC self-cleaning properties within the system.

Cerma Treatments act quickly to restore, clean, lubricate and protect by using the present oil/fluid as a carrier. All treatments are designed to release into the system over time (see specific instructions for drive times on each treatment). During this timed release, Cerma Treatments will restore, clean, lubricate and protect by treating all the metal parts within the system.

All Cerma Treatments are "One Time" treatments, meaning if you start to restore your vehicle's performance utilizing a Cerma Treatment, and you keep your vehicle in peak operating performance, you will unlikely need to re-treat any system.

In ALL cases, you will benefit from switching to Cerma Oils/Fluids, the BEST way to MAINTAIN peak operating performance.

## Cerma Motor Oils and Fluids

### The Worlds Only Self-Cleaning Motor Oil!

Cerma offers a complete line of oils and fluids for Engines, Transmissions, Power Steering, Rear Axles, and Hydraulics.

Cerma Motor Oils are the next generation of professional engine oils, using SiC (Run Clean) technology to directly address carbon formation, oxidation, and contamination that regularly occur within standard and synthetic engine oils. Cerma Motor Oils will save you money and are offered in both a 15,000 mile blend and a 30,000 miles blend.

No need for any fancy filters or disclaimers -- our oils are SiC! Cerma Motor Oils are the future of lubrication for years to come. Beyond synthetic protection at affordable prices.

How does the world's only self-cleaning motor oil work? Cerma's proprietary "SiC" Run Clean technology forces the carbon to attract to itself and into the oil flow. Once large enough, these deposits are filtered out through the engines normal filter system -- and the "cleaning" will continue for the life of the oil!

## Cerma Products

**Cerma offers a complete line of lubrication products to meet your needs. All fortified with Cerma's proprietary STM-3 technology.**

### Treatments for Vehicles:

**Engine, Transmission, Power Steering, Gear, Differential, Hydraulic, and Vanos.**

### Motor Oils:

**Offered in a number of viscosities for both gasoline, diesel, and motorcycle.**

### Specialty Treatments and Lubes:

**Air Conditioning and Refrigeration, Firearm Cleaner and Grease, Air Tool Lube, High Temp Lithium Grease, and Multi-Purpose Grease.**

### Specialty Oils and Fluids:

**Transmission Fluid, Gear Oils, Power Steering and Hydraulic, Compressor Oil, and Chain Oil.**

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