

# 100% PURE OIL AUTOMOTIVE & MARINE ENGINE TREATMENT







# **NANO-POLISHER ENGINE TREATMENT**

- NANOXD® is a Nano-polisher with revolutionary chemical technology to apply metal polishing at the molecular level.
- New Nanocarbon technology is the only product in the market that truly polishes and removes the engine friction while the engine is running.
- It's recommended for all sealed mechanical gear systems, engine, turbine or bearing.
- A highly advanced technology makes all current lubricant additive packages obsolete.
- **NANOXD**® works by forming a protective graphene coating and spherical nano-polishing particles, inside your engine or transmission as it operates
- It reduces the asperities on the surfaces of machined metal parts to less than 3nm (nanometers), reaching the size of the nanocarbon atoms. The asperities are removed from the surface of the metal parts and huge increases in fuel economy and power/torque are realized, along with drastic reductions in harmful carbon emissions (>90% max.) resulting in increased reliability and longevity of equipment.

# Advantages

- o FUEL ECONOMY Increase 13% to 23% on mpg
- o TORQUE Improve torque
- HORSEPOWER Improve true HP capacity. Providing same power at lower RPM
- o EFFICIENCY Increase overall engine efficiency with less engine breakdown
- o LONGEVITY Increase the engine life

# **Decreases**

- HEAT BUILDUP Reduces build-up generated by heat and friction.
- EMISSIONS Reduces emissions.
- NOISE Reduces engine noises.
- VIBRATIONS Reduces engine vibration.

# Return on Investment:

- Lower your Cost of Fuel between 13% to 23%.
- Lower your Cost of Emission Controls.
- Lower your Losses due to engine breakdown and maintenance costs.
- Reduce Demand to Discipline Drivers running idle engine or high RPM.
- Increase Your Revenue by increasing vehicle availability (lower downtime).
- Increase Overall Net Profit when calculated on cost per miles.
- Increase Value and Life Cycle of Vehicle.



# **INSTRUCTIONS**

# Applying NNNOXO at every fourth Engine, Transmission and Differential oil change.

- It may be added to either manual or automatic transmissions, for gasoline, diesel or natural gas engines.
- First time use: Feel free to take note of the current engine noise level and RPM at idle engine.
- During regular oil change, first pour 90% of the regular expected level with your preferred lubricant oil.
- Based on the regular oil engine capacity, pour 10% of that volume of **NANOXD**® until reaching the threshold mark.
- There is no concern to fill-up above the recommended full mark as **NANOXD**® will be quickly converted into Graphene.
- Leave your hood up and turn on the engine:
  - In the course of two minutes:
    - Slowly and steadily increase the RPM up to 75% of max. RPM acceptable.
    - Only for 5 seconds, remain at 75% of max. RPM.
  - In the course of two more minutes:

    - Slowly bring the RPM back down to 50% and hold for 5 seconds. Slowly bring the RPM back down to 25% and hold for 5 seconds. Slowly bring the RPM back down to idle and keep for at least 1 minute.

#### First time use:

While the engine is idle, be sure to notice the new and smoother engine sound, which lowers about 30% and lower RPM about 25%. Both are direct indicators of immediate improvement on engine performance.

# 2. Applying NANO in the Transmission

- It may be added to either manual or automatic transmissions.
- During transmission oil change, first pour the regular oil in the transmission at the regular expected level do not overfill above the threshold mark.
- Based on the regular oil capacity, pour 10% of that volume of **NANOXD**®.
  - For automobile Pour 3 4 oz down the transmission dipstick tube or via the fill plug.
  - For Class 7,8 (semi) trucks add 1/2 gallon (1.9 Liter) of product in the transmission.

# 3. Applying NANOX in the Differential

- It may be added to the differential
- During regular oil change, first pour the regular oil in the differential do not overfill above the threshold mark.
- Based on the regular oil capacity, pour 10% of that volume of **NANOXD**®.

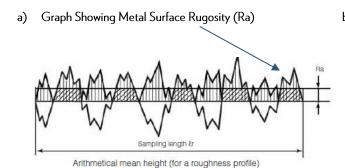
# 4. Applying NANOXO with every grease replenishment

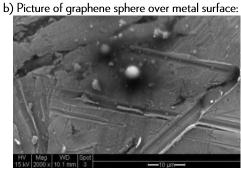
- It can be mixed in a 1:9 (10%) ratio into any bearing grease.
- Simply stir the liquid into the grease thoroughly, then apply as usual to the bearing surfaces.



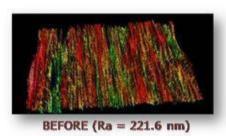


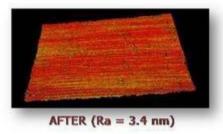
- NANCXII is a Nanocarbon that turns into DLC (Diamond-Like Carbon) spherical nano-particles by the heat generated due to the engine friction.
- The spherical nano-particles are known as nano-polishing particles that cut through the rough surface imperfections on the metal parts and polish them to atomic-level perfection (Ra = <4 nm, RMS = <5 nm) with recorded 99% elimination of asperities, also trapping metal wear particles in the center of each new Nano-sized sphere created.
- The formed Nanocarbon spheres (reduced Graphene-Oxide) adhere to the metal surface, turning into DLC (Diamond-Like Carbon) the strongest coating possible, which is harder than diamond permanently coating the surfaces of the parts, preventing future metal-to-metal contact and loss.
- The image below depicts the roughness level (Ra) of a surface, which is imperceptible to human eyes and touch:





• As the Nanocarbon spheres cut through the rough surface, the roughness level (Ra) is reduced, see the test below where initial Ra = 221.6 nm and has been polished to Ra = 3.4 nm.





- The formed Nanocarbon spheres then remain permanently coating the surfaces of the parts, preventing future metal-to-metal contact. These Nanocarbon spheres are made of the hardest substance known to mankind (Graphene Oxide) and are harder than diamond.
- NANOXD® technology is a revolution in lubrication that PERMANENTLY REMOVES the source of all friction in engines the asperities on the surfaces of machined metal parts. As asperities are removed from the surface of the metal parts, huge increases in fuel economy and power/torque are realized, along with drastic reductions (>90% max.) in harmful carbon emissions and increased reliability and longevity of equipment. With atomic-level perfection of engine parts, no harmful excessive hots spots are created, meaning engines stay perfectly clean (without engine sludge) for hundreds of thousands of miles!



# **HOW IT WORKS (cont.)**

 Recent real-world testing of Freightliner Class 8 (OTR) semi-trucks showed between 21.5% and 22.9% gains in fuel economy. These tests were done over 1,200 miles and 3,700 miles evaluation legs through 14 U.S. states.



• The photos below show an engine and oil pan below after 220,000 miles on it was inspected:

# Truck Engine:



## Image of Oil Pan:





# FREQUENTLY ASKED QUESTIONS

#### 1. How does NANOXD® act in the engine?

- It's designed to polish the asperities away (over time) to near atomic-level perfection.
- NANOXD® turns the residual metal into spherical nano-polishing particles by the heat generated by the engine friction.
- The nano-polishing spherical particles cut through the rough surface imperfections on the metal parts and polish them to atomic-level perfection (Ra = <4 nm, RMS = <5 nm) with recorded 99% elimination of asperities), also trapping metal wear particles in the center of each new Nano-sized sphere created.
- The formed (Graphene-Oxide) spheres adhere to the metal surface, creating the strongest coating possible harder than diamond and preventing future metal-to-metal loss.
- A brand-new engine metal has an average Ra (asperity ratio) of more than 200nm. Using **NANOXD**®, the asperities, measured by Ra value, were reduced from more than 200nm down to 3.4 nm. This is significant, as this value represents a 99% removal of asperities and over 1,000% improvement in surface smoothness! These levels of performance for a lubricant additive have never been achieved in the history of metallurgy.
- **NANOXD**<sup>®</sup> active ingredients are made to be consumed during the process. As such, the liquid in **NANOXD**<sup>®</sup> will disappear slowly over time in your engine's motor oil.

#### 2. How do I know that the claims for this product are legitimate?

- The formula used by **NANOXD** \* received a patent based on proof of technology and it's currently used by US government agencies for military purposes.
- **NANOXD**® technology has been tested in controlled environment and it's already in use in real-world environment, running on engines on different types of vehicles:
- o Automobile running for more the 50,000 miles
- o Amateur Car Racing Used on vehicles competing on low regulation competitions.
- o Truck Racing Used on all trucks competing on Formula Truck Racing competition.
- Long-Haul Trucks Used by trucks such as Freightliner Class 8 (OTR) with interstate routes.
- As stated by Exxon Lubricant Specialist:

"Incredible results "even" if I hadn't experienced over 10% improvement on my first tank of gas after one treatment in my Acura NSX. This product will revolutionize lube technology. In my 34-year career with Exxon International, I never saw anything even close, and one of my assignments was International Lubricants and Specialties Manager." By W.DAVIDMCCOY - former Exxon Lubricant Specialist June 16, 2016

#### 3. Are there references already published about this technology?

Below is a list of important researches or technical publications:

- Argonne American Institute for the Research of Energy and Transport
- o https://www.anl.gov/article/argonne-discovery-yields-selfhealing-diamondlike-carbon
- $o \qquad \underline{\text{https://www.tribonet.org/argonne-embraces-concept-of-in-operando-formation-of-carbon-based-tribofilms/}\\$
- US Department of Energy agreement with Argonne
- $o \\ \underline{ \text{https://www.energy.gov/articles/energy-department-selects-argonne-national-laboratory-lead-us-consortium-new-cerc-medium} \\ \\ \underline{ \text{https://www.energy.gov/articles/energy-department-selects-argonne-national-laboratory-lead-us-consortium-new-cerc-medium} \\ \underline{ \text{https://www.energy.gov/articles/energy-department-selects-argonne-national-laboratory-lead-us-consortium-new-cerc-medium-$
- o The use of NanoCarbon spheres "dots" in metal
- o https://www.nature.com/articles/s41598-018-24062-2
- Benefits of graphene as engine metal coating to improve performance
- http://www.materialsforengineering.co.uk/engineering-materials-explore/coatings-and-tribology/features/graphene-balls-in-car-engines-oil-benefits-lubrication-and-reduces-friction-and-improves-fuel-consumption-mpq/116527/



# FREQUENTLY ASKED QUESTIONS (cont.)

#### 4. Can the Lubricant Reaction in the engine cause any damage?

• No! It's not possible to cause any damage. Due to the natural properties and minute atomic size of graphene, it will react with the engine heat and continue to polish and adhere with the metal, disappearing as the engine runs.

#### 5. How do I add NANOXD® to my bearing grease?

• It can be mixed (in a 1:9 - 10% ratio) into any bearing grease. Simply stir the liquid into the grease thoroughly, then apply as usual to the bearing surfaces.

#### 6. Does the Lubricant void my Warranty?

• No. **NANOXD** sis compatible with all Oil components as it's basically composed of different forms of carbon-based chemicals and sterols (similar components of Synthetic Oil).

#### 7. What if my intended use is not listed here or on the dosage chart?

- NANOXD® may be added to any lubricant or grease in a 1:9 (10%) ratio.
- Remember not to deduct any of the lubricant or grease volume when adding **NANOXD**.
- **NANOXD** is always added ON TOP of the normal circulating volume of lubricant.

#### 8. What is "Ra" and why is it important?

- "Ra" (Roughness Average) is the measurement used to describe metal surface unevenness. It's the average depth and height of the uneven metal surface of engine parts.
- These "asperities" are the friction-causing imperfections between 2 metal surfaces.

#### 9. Can I use NANOXD • in place of regular motor oil?

• No! It's NOT a lubricant, it's a polisher at nano scale that improves the engine and lubrication!

#### 10. Does NANOXD® replace the need for any type of oil additive?

• Yes. There is no need to use any oil additive.

#### 11. Does it compare to other oil additives?

**NANOXD** o is not an Additive, as it's consumed quickly through the process of Nano-Polishing.

Product	<b>NanoXD<sup>®</sup></b> Nano-polisher	Latest EP/ AW Additives (Lucas Heavy Duty, Sea Foam Fx, Archoil AR9100, etc)	Regular Additive "detergent" ( Pennzoil, Chevron, etc )
Chemical Principle	Generate Graphene. Polishing at molecular level. Create a protective layer.	Create a protective layer in the engine.	Detergent chemical agent.
Agent Result	<ul><li>99% elimination of asperities.</li><li>Coated parts.</li><li>Eliminate Oil Burn – Clean Oil.</li></ul>	10% to 20% elimination of asperities.     Coated parts.     Reduce Oil Dirt	0% elimination of asperities.     Limited reduction on oil dirt.
Vehicle Results	High Improvement on Oil. High Reduction on Gas. Low Carbon Emission. Zero Engine Breakdown.	Improve Oil Quality. Limited Reduction on Gas.	Limited improvement on oil quality.

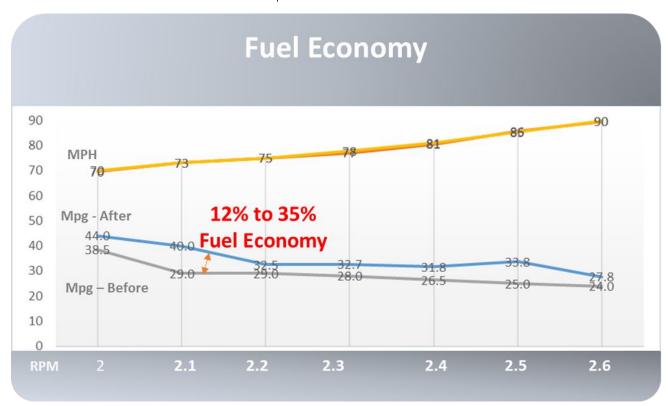




### **FUEL SAVINGS**

#### 12. What is the expected fuel economy for my vehicle?

In Open Road tests and real-life situations, the Fuel Economy has varied from 10% to 22.5%, depending on road condition, vehicle conditions and driver behavior. See below a ample for a Mercedes R350 with 150,000 Miles:



# Looking to Improve Your Fleet?





