

Frequently asked questions

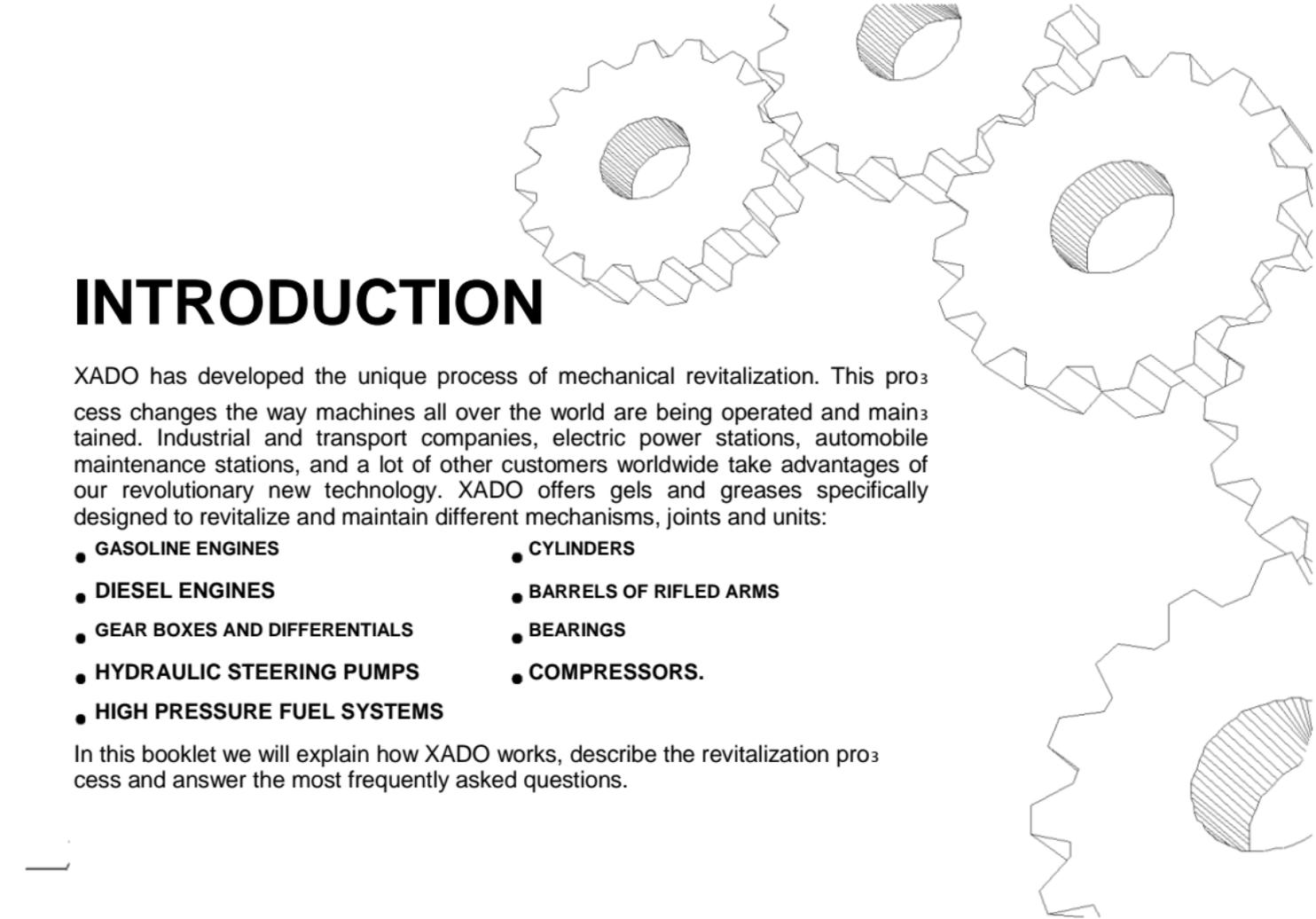
Optimize, improve and
perfect
the **TOLERANCES**

in your engine



XADO®





INTRODUCTION

XADO has developed the unique process of mechanical revitalization. This process changes the way machines all over the world are being operated and maintained. Industrial and transport companies, electric power stations, automobile maintenance stations, and a lot of other customers worldwide take advantages of our revolutionary new technology. XADO offers gels and greases specifically designed to revitalize and maintain different mechanisms, joints and units:

- GASOLINE ENGINES
- DIESEL ENGINES
- GEAR BOXES AND DIFFERENTIALS
- HYDRAULIC STEERING PUMPS
- HIGH PRESSURE FUEL SYSTEMS
- CYLINDERS
- BARRELS OF RIFLED ARMS
- BEARINGS
- COMPRESSORS.

In this booklet we will explain how XADO works, describe the revitalization process and answer the most frequently asked questions.

FREQUENTLY ASKED QUESTIONS

1. What is revitalization?

The term “revitalization” (from Latin “vita” — life) literally means “returning to life”. The discovery of the revitalization phenomenon is based on unique physical/chemical processes occurring under certain conditions in the friction zone.

XADO contains a building material and a unique energy activator which uses excess friction energy to create a new surface. The process of revitalization stops as soon as the part (or parts) restores its geometry. Revitalization provides individual adjustment of mating parts, and all rubbing surfaces appear to be covered with not quite clear glass.

2. How big can the buildup be?

XADO revitalizants will add the very necessary microns to the worn pump element, “hund-

reds” to the engine parts, and “tenths” to the cog wheels. This is REPAIR.

3. What are the properties of this coating?

XADO coating is very hard, quite smooth, and corrosion resistant. It has a micro hardness of 650–750 kg/square millimetre. Surface roughness of the most of new parts is between 0.9 and 2.1 Ra while XADO assures you a surface roughness of 0.06 Ra.

4. Could the cermet layer growth cause engine seizure?

No, it could not. The process of revitalization is a self-regulating one. It is the most active in the places of the extreme wear where there are all necessary conditions for the cermet coating growth: high temperature, extreme pressure, much friction. As soon as the surface is reconditioned and cermet coating is formed, the process stops as there are no reasons for the further growth.



solid crystal buildup to the depth of 10 to 30 μm . Therefore, there is no clear border between the matrix surface and the cermet layer.

8. Why does the amount of gel to be applied depend on the volume of oil system but not on the wear degree?

Because the amount of oil in the engine and other joints and units is proportional to the area of the operating surfaces. One should take into account the volume of oil system because the calculated amount of gel is sufficient to restore any wear degree.

9. Which kind of oil is the best for treatment, mineral or synthetic?

It makes no difference because the revitalizant is compatible with any kind of oil and fuel. It does not react with them and does not change their viscosity. The oil only carries revitalizant to friction surfaces. XADO is not for oil, it is for repair.

10. Should the oil be changed before the engine treatment?

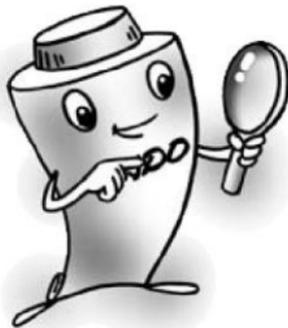
It is recommended only if the oil resources are not sufficient for the full cycle of revitalization.

11. Does XADO settle in the crankcase while the car is parked for a long time?

No, it does not if you follow the directions when applying XADO. XADO should only be applied to a warmed engine. The engine should then be run for at least two minutes at idle. This allows the revitalizant to localize on the friction surfaces.

12. Should I add XADO after each oil change?

No. The coating is formed during the first 930-1,240 miles (1,500-2,000 km) of running. After treatment you may change oil as usual. "XADO effect" remains after oil changes (up to ten).



13. How does XADO help to save fuel?

As a rule, excessive fuel consumption is caused by wear of the cylinder-piston group. After revitalization the geometry of the parts is restored, and fuel consumption returns to normal.

In addition, a lower friction factor (surface roughness 0.06 Ra instead of the usual 0.9 to 2.1 Ra) significantly reduces friction losses. As a result you can save up to 30 % of fuel at idle and 5-7% of fuel when driving.

14. Can I treat a two-stroke engine?

There is a special compound, gel for reconditioning the cylinders in two-stroke engines. It can be used for treating any mechanisms from scooters to lawnmowers and chainsaws.

15. Can valve guide rods be reconditioned?

Valves are protected with special oil-scrapers cups (valve seals), so the amount of oil getting onto the valves and, respectively, of revitalizant, is really slight. If the valves' wear is small, this is sufficient to protect and preserve the valves.

If the wear is extreme, it is necessary to replace the valves and the guide sleeves.

16. I bought an automobile and found out that the previous owner used some kinds of additives. Can I use XADO in this case?

Of course, you can. The XADO revitalizants are compatible with any kinds of additives.

17. If one takes your ads for granted, does it mean it's possible to run with no oil at all?

XADO does not recommend that you drive your car without oil. XADO produces revitalizants for repair, reconditioning and protection of the machinery. We told you about the run with a dry crankcase only to demonstrate the quality of our coatings, to assure you that, by treating your car, you will be protected in the event of the extreme circumstances. Besides the repair and savings, your car will be protected with XADO, you can count on it!



18. How long will the coating obtained last?

Say the compression in the cylinder before treatment was 142.2 psi (10 kgf/cm²) and after treatment, it became 184.9 psi (13 kgf/cm²). The manufacturer guarantees that this performance will remain the same for a year at any mileage. In practice, your car can run 60,000 miles without loss of improved performance (100,000 km). Then, you can treat your engine again.

19. What does the guarantee imply?

At our authorized service centres the qualified technicians diagnose your car, help to find a real cause of defects in your car operation and treat your car. There you receive a warranty coupon. We guarantee the stability of the performance improved for a year at any mileage. Having visited our service centres you can be sure your car is properly treated.



20. Can all compressors be treated by XADO technology?

Yes, practically all compressors can be treated by XADO technology. The benefits of the treatment are: increase of oil pressure, elimination of clearances in the crank gear; elimination of ovality and obliquity in the cylinder-piston group and reconditioning of worn surfaces up to 0.5 mm. The oxygen compressors cannot be treated by XADO because of absence of oil.

should I do when it is difficult spent grease?

In this case, it is recommended to use the XADO Grease. Add it directly to the regular grease. The high concentration of revitalizant in "Repairing" Grease makes it possible to restore the extreme worn parts up to their original sizes and ensures a practically unlimited service period later on. All XADO Greases are mutually compatible.



22. How to revitalize joints and units operating on greases?

By replacing the regular grease with XADO Greases. First you should diagnose the joint wear degree. Choose the right XADO Grease:

1. **“Protective” Grease** is used in new joints and units, or in those with insignificant wear (up to 10%). It is a universal substitute for any grease.
2. **“Restoring” Grease** contains more active components. It not only protects parts but restores their geometry as well. It is used in joints and units with wear degree up to 50 %.
3. **“Repairing” Grease** is used in joints and units with wear degree up to 80 %.

23. We have a lot of machine tools. What would be the benefits of XADO treatment?

A machine tool is rather complex mechanism. Naturally XADO revitalization improves all its performances. For example, spindle, the main part of any machine tool, operates at high speed and under heavy loads. It wears considerably and quickly. Professionals know that it will take a lot of

time and efforts to repair a machine tool. The high-speed XADO Greases will protect and recondition the parts of your machine tool.

24. Is the cermet layer formed on non-ferrous metals?

Yes, a cermet layer is formed on all “metal-metal” friction pairs, including non-ferrous metals and any alloys.

25. I have seen some ads about revitalizants for rifled barrels. Is it of XADO too?

Yes. XADO revitalizant for rifled barrels is one of our new products. It is especially designed for restoring and protection of barrel bore.

It ensures the following benefits:

- ⌘ reconditioning and repair of inner barrel surface;
- ⌘ improved accuracy of hits;
- ⌘ ten times increased wear resistance and endurance of the barrel;
- ⌘ maximum killing power for given ammunition;
- ⌘ flatter trajectory;
- ⌘ more spin.



26. Does the barrel need any preparation before revitalization?

No special preparation is required. A regular cleaning of the bore is enough.

27. What is the breaking point at which XADO will fail to restore the barrel?

The XADO revitalizant improves the firing performance of arms at any wear degree.

28. What is the service life of a reconditioned barrel?

A special experiment was needed to answer this question.

XADO revitalizant for barrels of rifled arms has passed very severe tests in "Rzhevka" certified test laboratory of firearms. The results of the revitalizant were examined on different arms, new and worn out, on both chrome and non-chrome barrels. The experts' conclusion was specific: XADO revitalizant has the ability to remarkably improve

the accuracy of any rifled arms.

In one powerfully convincing test a brand new SKS rifle was treated with XADO. You would think that nothing could be improved in a new such rifle. But after the treatment, the accuracy of hits improved by 23%. Then 200 consecutive shots were fired. The barrel became so hot that the varnish on the forearm began to melt. It was cooled in a brutal manner — plunged in a bucket of water. The witnesses were all anxious about the results of such an experiment. Even after this abuse the radius of the group of shots was reduced by a surprising 46.6 %.

The service life tests carried out at Rzhevsk allow us to claim that the service life is 10,000 shots with no loss of improved performance.

Under normal loads, you'll be able to keep the barrel in an ideal condition at all times by treating it once a year with the green gel (10 shots) or fire 10 times using the same gel after every 1,000 shots.



29. Does the treated barrel need any maintenance?

No special maintenance is required. Moreover, the protected inner surface of the barrel is more corrosion resistant than conventional coatings.

30. Does it make any difference whether the barrel is chrome or nonchrome?

The revitalizant improves the shooting performances of a barrel with any coatings, both chrome and nonchrome.

31. I have a smoothbore gun with a pit in the chrome coating. Will XADO help?

Yes, it will. The main point is to observe the revitalization principle, i.e. to ensure sufficient friction between the bullet and barrel surface. For this, you might want a bullet of special design. In this field we have the special experience and practical skills of both our experts and firearms fans. For more detail, do not hesitate to contact XADO.

32. Is XADO toxic?

No. All our products have a sanitary permit for usage in the food industry and a hygienic certificate.

33. Where can I get additional information about your products?

Name of Importer:

Achievement LTD.

Web: <http://xado.unacs.bg>

e-mail: officexado@gmail.com

Tel. +359 8996 98252;
+359 8835 90952..



TREATMENT INSTRUCTIONS

GEL₃ REVITALIZANT FOR GASOLINE AND DIESEL ENGINES



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Step 1

1. Squeeze out the contents of one tube into the oil mouth of the engine warmed up to the running temperature.
2. Start the engine and let it idle for no less than 20 minutes.

Step 2

Do as described in Step 1 after 60–150 miles (100–250 km) run.

Step 3

1. Do as described in Step 2 after 60–150 miles (100–250 km) run.
2. Revitalization is considered to be completed after 930 miles (1,500 km) run.

Note!

1. DO NOT CHANGE oil until the end of the treatment!
2. Treatment can be done in idling conditions. 4 hours are equivalent to 120 miles (200 km) run.
3. New engines should be treated in one step. Double the initial dose, according to the Table.

Oil system volume, qts.	2 to 10	11 to 20	21 to 30
Tubes, pcs	3	6	9
Treatment scheme	1+1+1	2+2+2	3+3+3
Tubes for new engines	2	4	6



GEL₃REVITALIZANT FOR GEAR BOXES AND DIFFERENTIALS

1. Squeeze out the gel into the grease mouth of the gear box, transfer case or differential according to the following Table.

2. Revitalization is considered to be finished after 50 hours of operation (1500 km/930 miles run).

Note!

1. The sure sign of revitalizing beginning is mechanism noise reduction as early as the first kilometers of run. If noise reduction (i.e. improvement of mechanism operation) stops at some moment, it testifies to extreme wear of the mechanism — the recommended dose should be doubled.
2. If after 100–200 km (65–125 miles) run mechanism operation improvement does not occur, the most probable cause is a mistaken diagnosis.
3. DO NOT USE IN AUTOMATIC TRANSMISSION!!!



Oil system volume, qts.	Number of tubes	Treatment scheme
1 to 2	1	Once
2 to 5	2	Once
5 to 8	3	Once

GEL₃REVITALIZANT FOR THE HYDRAULIC STEERING PUMP

1. Squeeze out one tube of gel into the steering pump reservoir according to the Table.

2. After adding XADO gel₃revitalizant for steering pump, turn the steering wheel from stop to stop for 5–10 minutes.

3. Revitalization is considered to be finished after 50 hours of mechanism operation (1500 km/930 miles run).

Note!

1. The sure sign of revitalizing beginning is improvement in steering gear operation (steering wheel force augmentation, operation accuracy, noise reduction) as early as the first kilometers of run.
2. If after 100–200 km (60–125 miles) run mechanism operation improvement does not occur, the most probable cause is mistaken diagnostics.



Oil system volume, pints.	Number of tubes	Treatment scheme
2 to 4	1	Once
4 to 10	2	Once
10 to 16	3	Once



GEL₃REVITALIZANT FOR HIGH PRESSURE FUEL SYSTEMS

1. Squeeze out the contents of one tube into the fuel tank with a minimal amount of fuel.
2. Fill the tank with 10 or 15 gallons of fuel.
3. Run the automobile as normal.
4. Revitalization is considered to be completed after 100 hours of mechanism operation (3,000 km/1,870 miles run).

Note!

1. The sure sign of revitalizing beginning is improvement in mechanism operation (noise, vibration and smoke exhaust reduction) as early as the first kilometers of run.
2. It is necessary to double recommended dose if the wear of mechanism is high.
3. If after 100–200 km run mechanism operation improvement does not occur, the most probable cause is a mistaken diagnostics.



GEL₃REVITALIZANT FOR CYLINDERS

1. Warm up the engine up to operating temperature.
2. Remove the spark₃plug and disconnect the central wire of ignition distrib₃utor and commutator.
3. Squeeze out the tube contents into the cylinder.

Note!

- Gel should ingress onto the cylinder wall and not on the piston. Use medical syringe with a plastic tube in hard₃to₃reach places. In this case the gel should be dissolved in 5–10 ml of motor oil.
4. Perform 15–20 piston strokes (by crank, towing, turning of driving₃wheel etc.).
 5. Screw in the spark₃plug and start the starter 3–4 times for 3–4 sec in 15–20 sec intervals.
 6. Connect the coil wire, start up the engine and operate at idling during 2 minutes.
 7. Operate in normal mode.





GEL₃REVITALIZANT FOR RIFLE BARRELS:

Barrel bore treatment procedure

Step 1 (treatment with red gel, 10 shots)

1. Use the rifle brush to apply the red gel to the inner barrel surface.
2. Apply the gel to the bullet surface protruding out of the cartridge.
3. Fire once.

4. Fire again no less than nine times, having repeated items 1 and 2.

Step 2 (treatment with yellow gel, 10 shots)

Fire no less than ten times, having preliminarily treated the barrel bore and the bullet with the yellow gel.

Step 3 (treatment with green gel, 10 shots)

Fire no less than ten times, using the green gel.

Note:

1. Treat new barrels by firing ten times using the green gel.
2. For treatment of reconditioned barrels, it is advised to fire 10 times once a year using the green gel or fire 10 times with the same gel after every 1,000 shots.



XADO₃MOTO

should be fully consumed).

Step 3

Repeat Step 2.

Treatment procedure for small engines with separated fuel and oil system

Step 1

1. Warm up the engine up to operating temperature.

2. Squeeze out the contents of one sachet into the filler of the engine oil tank.

3. Start the engine and let it idle for no less than 2 minutes.

4. Run as normal.

Step 2

Repeat Step 1 after 90-150 miles (150-200 km) run of the motorcycle or 4 hours of idle work of the engine (equivalent of 120-150 miles/ 200-250 km run).

Step 3

Repeat Step 2.

Treatment procedure for small engines with combined fuel and oil system

Step 1

1. Squeeze out the contents of one sachet into the full fuel tank (it is recommended first to dissolve the contents of the sachet in the oil at temperature 104-122°F (40-50°C) or in the gas at temperature above 68°F (20°C).

2. Run as normal.

Step 2

Repeat Step 1 when you refill the tank (the gas with gel





GEL₃ REVITALIZANT FOR COMPRESSORS AND BEARINGS

XADO revitalizant gel is designed for restoration and repair of all types of compressors, (except the sleeve assembly in oxygen compressors) as well as for bearings running in an oil reservoir.

This revitalizant gel efficiently eliminates wear in compressor and bearings working surfaces, provides reliable protection of friction and roller surfaces against hostile environment, and increases service life by 2 to 4 times.

It is compatible with any kind of oil or fuel and does not react with them or change their viscosity.

It is compatible with any kinds of additives, metal conditioners, remetalizants, etc., irrespective of the sequence of their usage. It ensures the following benefits:

- ⌘ restoration and protection of the friction surfaces from wear;
- ⌘ restoration of assemblies geometry;
- ⌘ increase of oil pressure in compressors,
- ⌘ 20% decrease of power consumption at idling;
- ⌘ noise and vibration decrease;
- ⌘ 36% increase of output of piston compressors;
- ⌘ 2 – 4 times increase of service life of bearings.

XADO GREASES

XADO grease is a completely unique new product, designed for application in all assemblies and mechanisms operating with use of greases. All XADO greases will neither liquefy nor expel at angular velocities up to 10,000 rpm. The amount of the grease for any particular assembly depends on the design and is specified in the service instructions for these assemblies and mechanisms. The patented formula of these up-to date greases is based on a composition of XADO revitalizant and EP complex.

Fields of application: water pump bearings, hub bearing assemblies, ball supports, steering heads, crosspieces. In industry — any assembly from basic movements to turbines of Nuclear Power Plants.

“PROTECTIVE” XADO₃ GREASE

The grease is especially effective for wear protection of bearings (up to 10,000 rpm). It compensates wear up to 10%. This grease is a universal substitute for all regular greases.

It is recommended for new assemblies and parts!

“RESTORING” XADO₃ GREASE

The grease is especially effective for restoration and wear protection. It compensates wear up to 50% and restores the



geometry of parts. It is recommended to remove old grease before using "Restoring" XADO grease.

"REPAIRING" XADO₃GREASE

The grease is especially effective for repair of quite worn mechanisms. It compensates wear up to 80%. It is recommended to remove old grease before using this grease. Do not use for new assemblies and parts!

"SPECIAL" XADO₃GREASE

Chemical concern "XADO" is able to manufacture any grease with characteristics which may interest your organi₃

zation. For example: for air compressors, heat resistant, marine greases, greases for high speed assemblies (up to 60,000 rpm), etc.

XADO₃SUPERGREASE

A new generation product with EP complex, designed for protection and repair of all assemblies operating with use of greases. By revitalizing effect it is set between "Protective" and "Restoring" XADO greases and repairs 10–30% wear.

Available in 12 ml packet, 125 ml tube, 1kg package.