



# BALLISTOL

## Gun Care

**Cleans \* Preserves \* Lubricates**

### General gun maintenance

If the gun became wet while being used, it must be dried by means of a soft cotton cloth on the outside without exerting pressure. Then spray **BALLISTOL** into the barrel on both ends, shake and turn the barrel several times so that all the lands and riflings, the whole of the polygon surface are reached by **BALLISTOL**. Then allow **BALLISTOL** to react for a couple of minutes so that remnants of grease and deflagration can be dissolved. Mind that the muzzle must point downward while you are cleaning your gun, otherwise powder fouling, unburnt propelling charge or other kinds of dirt might get into the system and settle there. The system might lose its smoothness and it might even happen that the firing pin gets seized.

Propelling charges also hit back into the system during ignition. Gun-smoke and tiny particles get into the movable parts and deposit there. Therefore these areas must be cleaned especially diligently with **BALLISTOL**. Cotton-wool tips and pipe cleaners will help you with that. Surplus **BALLISTOL** can easily be removed with a soft cotton cloth. What is important is that a thin film of **BALLISTOL** remains. After that pull a dry tow or felt-stopper from the cartridge chamber to the muzzle in case it is a break-joint gun or, if there is no joint, from the muzzle to the cartridge chamber and back. Always use a new tow or felt-stopper because dirt is to be removed and not to be distributed evenly. Then wipe the **BALLISTOL**-moist outside of the gun again slightly. Every now and then the rifle-sling ought to be treated with **BALLISTOL**, too, so that it does not become hard or go mouldy but stays supple and smooth.

Pistol magazines, too, must be cleaned regularly with **BALLISTOL**, because there are also traces of gun powder and the cartridge feed in the magazine must remain smooth.

Try to avoid pull-throughs or, if that is unavoidable, don't forget to use some kind of muzzle protection. Like little strikes fell big oaks, chainlinks will remove layer after layer in the muzzle area until shot precision is affected drastically. Particularly the use of wire brushes causes muzzle damage when you frequently scrub back and forth with the cleaning rod instead of removing the brush after pushing through the rod in one direction. In case of metal residue in the gun it would be best not to use any wire brushes at all but to resort to **ROBLA-SOLO**. In chapter II you will learn more about that. Your gun is now ready for service again or prepared for storage. If you do not use your gun for a longer period of time, it would be wise to oil the barrel. Just pull a tow moistened with **BALLISTOL** through it and the remaining film of **BALLISTOL** protects safely against corrosion under normal circumstances.

After a strenuous hunt you are often reluctant to clean the gun right away. In that case just spray some **BALLISTOL** into the barrel on both ends and a little touch on the outside of the gun and you can postpone cleaning to the following day without causing any damage to your gun. Don't forget: the muzzle is to point downward as we have already mentioned above. Only the completely cleaned gun can be stored with the muzzle pointing upward in the gun cabinet.

**By the way** you can also employ **GUNEX 2000** to improve the outward appearance of your gun. **GUNEX 2000** protects against corrosion even better and longer than **BALLISTOL** does. That is why **GUNEX 2000** should be used above all when weather conditions are bad and when the gun cannot be cleaned for days. For cleaning your gun inside however, only use **BALLISTOL**, for only an alkaline gun oil like **BALLISTOL** can neutralize acid residue efficiently and thus avoid damage. Besides, under normal circumstances **BALLISTOL** protects sufficiently against corrosion in the field of hunting and shooting.

Please remember, real brownings are oxide coats that are ultrathin. Like a coat of paint for example, they also suffer from mechanical wear and tear if not treated gently. Intense rubbing can eliminate the browning quickly. Therefore you should treat the browned parts almost tenderly with a soft cloth so that you can enjoy the gloss of the deeply black browning for a long time. Should the browning be damaged anyway, you can do the repair work yourself by means of **KLEVER-Quick-Browning**. More about that in chapter three of this brochure. With some sub-caliber rifles (e.g. Remington) some parts of the gun consist of aluminium-base alloys or similar materials. Such parts cannot be browned. Consequently, those parts are varnished black with a dull finish, which comes close to the impression a real browning makes. In many cases the varnish is not oil-resistant. In that case it suffices if you clean those parts with a wet cloth. Barrel and lock however are always made of steel, which means they should always be cleaned with **BALLISTOL**.

Sometimes certain people recommend employing gun-oils containing Teflon. We strictly object to and warn against that recommendation if those products are used in the barrel or the cartridge chamber. Those most finely distributed polymers contain carbon fluorides. During ignition there are temperatures of up to 3000° Centigrades and an immense pressure increase (2000-3000 bar) in the cartridge chamber and in the barrel. Under such conditions the fluoride containing polymers decompose, and small amounts of hydro-fluoric acid come into being. Hydro-fluoric acid is highly aggressive and often causes pitting in the barrel. So, be utterly careful when you use products containing Teflon. These products should only be used with the mechanical parts, but even there they don't have any advantages.

If you use full-jacketed or partly jacketed cartridges and if your ammunition expenditures are average, gun maintenance with **BALLISTOL** or **GUNEX 2000** will be absolutely sufficient. At least once a year or, if you shoot frequently, more often than just once, you should thoroughly clean your whole gun.

## **II. Residues in the barrel caused by lead and tombac bullets**

Some barrels become inaccurate after only 10 shots, others after 50 shots. Why? The tombac alloy of the modern deformation projectiles gives off tiny parts and covers the metal surface in the barrel with a thin layer of metal residue, which becomes thicker with every shot until even the best gun spreads the shots' for no obvious reasons!

Employed correctly, ROBLA-SOLO is the safest and most gentle method of regaining the gun's precision if metal residue is the reason why the gun has become inaccurate. ROBLA-SOLO is far better than any wire-brushes and other similar instruments of torture. Finally **ROBLA-SOLO** replaces steel wool, which has ruined so many barrels irrevocably after just one cleaning. **ROBLA-SOLO** gently dissolves tombac, copper, lead and zinc without damaging steel, nickel and chrome.

### **Instructions for use:**

In case of strong metal residue plug the barrel on one end with a cork or piece of gum and fill the barrel with **ROBLA-SOLO**. Allow for a couple of hours to let **ROBLA-SOLO** do its job. If the barrel is only slightly foul, simply pull through a tow or felt stopper wetted with **ROBLA-SOLO**, that will do then. A yellow to blue colour indicates dissolved copper and tombac, whereas zinc and lead leave a colourless solution. Repeat this procedure until the felt respectively tow remains uncoloured. Let the solution run off, then pull a dry tow through the barrel and after that use **BALLISTOL** or **GUNEX 2000** as described in chapter I. Before you use the gun then, we advise you to pull a dry tow through the barrel again.

Don't let the barrel lie around for a longer period of time when it is only moist with **ROBLA-SOLO**, because then the ammoniacal compounds will evaporate and the remaining water may react with certain organic salts thus causing localized corrosion. The dissolving power of **ROBLA-SOLO** is so enormous that it can even corrode the browning. Browning parts that have been moistened with **ROBLA-SOLO** must be dabbed at once or rinsed with water. If necessary repairs can be carried out with **KLEVER-Quick-Browning**, which will be described in the chapter to follow.

### **By the way...**

... be careful when you clean hard chromed barrels with **ROBLA-SOLO** (this is also relevant to other comparable products). The chrome-plating is often coated on copper that has been disengaged by means of an electrolytic process which is advantageous compared to the process of direct chrome-plating of the barrel steel. If the coat of chrome has any fissures, even if they are only of microscopic size, the barrel cleaner will corrode the underlying layer of copper, which is its task when there is metal residue in the barrel. The consequence is that the copper under the chrome will be dissolved and then the chrome will come off eventually, too. Mind you, this will not happen if the coat of hardened chrome is absolutely flawless.

### **III. Damaged Browning**

The browning of a gun can be damaged by too intensive a cleaning, during a rough hunt or, when a riflescope is fitted. To spare you the trouble of complicated decoction and an expensive new browning in the browning bath, you can repair minor damages by means of **KLEVER-Quick-Browning**. **KLEVER-QuickBrowning** plus treatment with **BALLISTOL** or **GUNEX 2000** bring about a deeply black dull finish quickly. This coating is wear-resistant and oil-proof. With a little skill you can achieve the same results as with original browning. If you are a little more experienced you can brown even complete barrels with **KLEVER-Quick-Browning**, or single parts such as screws, nuts and bolts. Please remember that steel containing more than four percent of chrome cannot be browned. The same is relevant to casings made of aluminium or zinc. There are other special products for these metals.

**Instructions for use:**

The part to be browned must be totally free from grease in order to achieve an even browning. We recommend **ROBLA-Cold-Degreaser** for this purpose. Put the degreaser with a brush on the part you want to brown and then wipe it off again. Repeat this several times but don't wipe off the degreaser finally, just let it run off slantingly. When the part is dry again, take another brush and put **KLEVER-Quick-Browning** on it. After one to two minutes there will be a yellow coat. Now you can rinse the treated part with plenty of water. Then dab the repaired spot with a paper-handkerchief. At last use **BALLISTOL** or **GUNEX 2000** spray and remove surplus oil with a cotton cloth. The new browning will then appear deeply black.

**CAUTION:**

**KIEVER-Wick-Browning** contains a mineral acid. Like all mineral acids it is caustic. Therefore take care when working. If the acid gets on your skin, mucous membranes or into your eyes, immediately rinse out with water or see a doctor. Mark you that **KLEVER-Quick-Browning** does not get under your fingernails, otherwise the thin cuticle might get cauterized. There are always lots of bacteria in the nailbed which can cause painful onychitis. The best thing you can do to protect your hands is to use thick rubber gloves.

**IV. How to preserve stocks**

Most stocks are so-called oil-stocks, i.e. the wood has already been impregnated by the manufacturer. Furthermore there are burnished stocks, mainly with English rifles and the weapons of connoisseurs. Whatever the style of the stock of your gun, with our series of **BALSIN** products you have superb polishes available.

**Balsin-Stockoil *Bright – Reddish Brown – Dark Brown***

provides even old, brittle and weather-beaten wooden stocks with a new silky lustre. Balsin-Stockoil makes the wood water-repellent, protects it against decay and mould, enhances its veining, and increases its power of resistance against the impacts of weather by means of a particular silicone formula. Thus the stock is kept smooth and stain-free. Balsin-Stockoil is absolutely ideal for the preventive maintenance of walnut-stocks and other unprocessed wooden materials. It is also highly recommendable for furniture without varnish.

Balsin-Stockoil comes in various colours like Bright, Reddish Brown and Dark Brown. The latter two will help you especially with the treatment of natural wood to achieve the desired tinge as well as with recolouring wood. For intensifying the graining of the wood and for the regular maintenance after hunting-sessions we recommend Balsin-Stockoil Bright.

***Instructions for use:***

First the stock is to be abraded with corundum paper (corn 280) till the surface is free from uneven spots. Then the stock is rubbed down again with fine corundum (corn 400) so that you will get a smooth surface. After that rub the wood with a lint-free cotton cloth. If the stock is indented or if parts of the wood are splintered off, these damages are to be treated with a file beforehand to make the surface evenly smooth. This measure is of course redundant in case the stock is already smooth and is just to be repolished.

The dust- and fluff-free stock can now be coated evenly with Balsin-Stockoil. This may be done either with a brush or a cloth that has been dipped in Balsin-Stockoil or just let the oil drop on the stock and then rub and distribute it on the surface. How often you will repeat this procedure depends on the shade you want to achieve. After the final coating, rub the wood

with a lint-free soft cotton cloth. Form the cloth into a ball and move it in small circles to reach all the pores of the wood in like manner. If you do not have a lint-free cloth at hand you can carry out the final treatment with the ball of your thumb. The stock has now got a marvellous silky gloss and is protected against rain, moisture, decay and mould for a long period of time.

## **V. Muzzle loaders, Blank Guns and Signal Weapons**

For the removal and treatment of remainders of black powder, e.g. in muzzle loaders, blank guns and signal weapons, **BALLISTOL-KLEVER** has developed a special product for you: **ROBLA-Blackpowder-Solvent**.

Contrarious to the propelling charge of modern ammunition which hardly produces any smoke, remainders out of the deflagration of black powder consist of anorganic salts, soot and other products of combustion. These remnants endorse the destructive forces of corrosion in the barrel much more than the remnants of modern propelling charges do. Gun oils which are all of organic nature cannot eliminate those remnants satisfactorily. That is why you need **ROBLA-Blackpowder-Solvent**, which masters that problem in an outstanding way.

### **Instructions for use:**

Saturate the tow or felt stopper attached to your cleaning-rod, or the brush your purchased together with you blank gun with **ROBLA-Blackpowder-Solvent**. Then pull the tow, etc. several times through the barrel that is to be cleaned. How often you repeat this procedure is dependent on how much residue has accumulated in the barrel. Analogously the revolving breeches in blank guns must be treated. Then the treated parts need to be dried by pulling through a new tow for instance, and finally. **BALLISTOL** should be applied as described in chapter one. It is advisable to repeat this procedure several times to achieve optimal results.

### **CAUTION !**

**ROBLA-Blackpowder-Solvent** can damage the browning of your gun. So try to avoid squirts on the browning. Should it happen that some solvent gets onto the browning, it must be dabbed immediately, and the afflicted spot must be rinsed with water. Never let your gun lie around for a longer period of time after it has been treated with **ROBLA-Blackpowder-Solvent**. Subsequent to that your gun ought to get an after-treatment with **BALLISTOL**. If the solvent gets into your eyes, rinse with water at once. If the solvent gets in contact with your skin, it is enough to simply wipe it off.

## **VI. Some Hints at How to Store Guns**

Apart from all the security instruction, which are certainly well-known to you, there are some additional aspects which might be of interest to you, too. Always keep your gun stored in a dry place. Usually, these conditions are fulfilled in a gun cabinet at normal room temperature and average humidity. In spite of this - though very rarely - your gun might be afflicted by corrosion, even if the maintenance of the gun has been perfect. Do not put the blame on the gun oil you used, particularly when you used **BALLISTOL** or **GUNEX 2000**. Rather look for other reasons that might have caused corrosion. For example, if you have stored your ammunition close to the gun. Every cartridge emits gases, although in tiny quantities that are hardly traceable. In principle this is not surprising because propelling charges consist of very labile compounds, which are bound to burn themselves due to their structure. This burning

process comes to pass extremely fast in case of an ignition, but at room temperature, too, there is a tiny bit of conversion. That is why the storage of cartridges is limited. It depends on both the quality and quantity of the Ammunition stored, if the escaped gases in connection with the humidity in the air will cause any corrosion. It must also be taken into consideration that in a cabinet there is virtually no exchange of air so that an accumulation of noxious gases is easily possible. Therefore you should keep your ammunition separated from your gun, if possible in an extra partition or drawer. To air regularly is a good prophylactic measure.

## **VII. What you might want to know about BALLISTOL**

**BALLISTOL** was developed by Dr. Helmut-Wolfgang Klever, son of the founder of the company, encouraged by the German Reich army. What was needed was a kind of oil which could be used for many purposes, e.g. for weapons and wounds, and which was suitable for the soldier's field pack to have some first aid available for light wounds. Such a seemingly contradictory combination of medical and technological aspects was not unusual in those days. Just take for example vaseline, which was then used as a lubricant, as an admixture to bandages, or in the field of cosmetics.

1905 was so to say the year of birth of **BALLISTOL**. The brand name is derived from the word "ballistics". Due to its versatility and excellent quality **BALLISTOL** became a great success. It is not exaggerated to claim that no other similar oil compares to **BALLISTOL**. The founding fathers of our firm liked experiments and so soon found new fields of application for **BALLISTOL**: from gun maintenance to the treatment of wounds, from treating certain inner diseases to mycosis pedis (athlete's foot) and psoriasis, from the crest scrag of hens to the catarrh of rabbits, from the treatment of the huntingdog's ears to saddle problems with horses, from the inflammation of the guns to behinds sore from riding. Simultaneously creative hobbyists and artisans found new and other ways of how and where to use **BALLISTOL**: instruments used in the field of mechanics and precision mechanics and all machines and engines made of iron and steel; everything that needs to be protected against corrosion and to be easily movable. From the automobile to the machinery in industries, from bicycles, locks, door-hinges, instruments for gardening, to mechanical clockworks, water meters, bottling-plants and sausage making machines. Beside protecting excellently against corrosion and lubricating, **BALLISTOL** can do many more things: it is a disinfectant, too; this is why many dentists used **BALLISTOL** for the maintenance and disinfection of their instruments before World War II. In some hospitals it is still used today in the process of steam sterilization of surgical instruments and apparatuses. There are no objections whatsoever to taking **BALLISTOL** like a medicine. Animal experiments have shown that even if the stomach of the animal was filled completely with **BALLISTOL**, there was no harm done at all, no case of poisoning. Little children are said to have drunk a whole bottle of **BALLISTOL** by mistake. There were no harmful consequences, the only thing that was reported was that the children felt a little hungover on the following day.

After the Second World War a new law on the manufacture and prescription of medicines was passed, which made it necessary to distinguish between **NEO-BALLISTOL**, which is registered as a medicinal remedy, and **BALLISTOL**, which, according to the law, could no longer be advertized as a medicine.

Otherwise it would have had to be registered as a medicinal remedy, which means it can only be sold at the chemist's. So BALLISTOL was developed further into **NEO-BALLISTOL**, which does no longer protect against corrosion but has an increased remedial effect through the addition of valuable natural substances.

**BALLISTOL** however, is still being produced as it has been produced since 1905 without any alterations. Four or even more generations of people have with reason relied on the invariable set of ingredients of BALLISTOL. The valuable natural substances used for the production of BALLISTOL are of outstanding purity as it must be the case with medicines and the production is under strict control. Thus, if the bottle is well screwed up, BALLISTOL can be stored for 25 or even more years without losing its thin liquid consistency, without gumming up or becoming ineffective. Only its colour gets a little darker after a quarter century or so. BALLISTOL has also got what we call an ecological plus. In contrary to other technical oils, including most gun oils, the oil contained in BALLISTOL does not contaminate our drinking water. Moreover, the substances used in BALLISTOL are part of nature, are components of the natural circulation and are so decomposed biologically. If you want to know more about the manifold forms of application of **BALLISTOL**, just drop us a line and we will send you special prospectuses and brochures.



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**Your specialized dealer:**

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|------------------------|---------------------------------------|
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