



## **DU-LITE CORPORATION**

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# **COMPLETE DU-LITE FIREARMS REFINISHING SYSTEM EQUIPMENT SET-UP INSTRUCTION SHEET**

With your purchase of Du-Lite's complete firearms refinishing system you have joined the hundreds of manufacturers and professional gunsmiths using the Du-Lite Process for a great finish every time! This sheet will assist you in installing your new equipment. Du-Lite personnel are available by phone to assist you with any unforeseen problems. Please read through this sheet and your operating instructions for the Du-Lite Steelkote Black Oxide Process, before you attempt to set up your new equipment.

Equipment Location and Safety Information - The first consideration when installing equipment is where to set up the system. Because the process uses chemicals that can be potentially dangerous, certain guidelines should be followed. The equipment should be set up in an area where proper ventilation can be provided, because you will be using gas burners which produce combustion by-products and because fumes or mists produced from the surface of the tanks must be exhausted from the processing area to insure operator safety. Install this equipment against a back wall close to a window or install a small wall exhaust fan to remove the water vapor and combustion by-products. Do not set up the equipment in a small enclosed area without providing good ventilation! Your processing area must be well lit, because the materials you will be working with are highly caustic and can cause injury if misused. Accidents can occur much more easily if you can't see what you are doing.

The equipment and refinishing materials should be set up and stored in an area that can be secured and locked, to prevent unsupervised access. Children or pets should not be allowed in the processing area, because the granular materials and the solutions used in processing are highly caustic and can cause severe chemical and thermal burns. Anyone in the processing area should wear protective gear, including rubber plating gloves, chemical resistant apron, face shield and an appropriate respirator if dust or mist is present. Contact of any part of the body with the solutions or the granular materials will cause injury.

Operators should wear a long sleeved cotton work shirt to protect the arms from any exposure to solution. Should mild exposure occur, (due to small amounts of solution being splashed when work is put into the tank, or from any other cause), contaminated clothing should be removed, the affected area of the body should be washed well with fresh water, and the area should be neutralized with a mild acid such as white vinegar or mild boric acid solution. A bottle of white vinegar should be kept handy for such incidents, because treatment should be immediate. In all but the slightest cases of exposure, medical attention should be obtained immediately. It is absolutely necessary to obtain medical help if the solution comes into contact with the eyes! The solution contains caustic soda (lye) and neglected exposure of the eyes can cause serious eye injury. Always wear eye protection when mixing or operating your black oxide processing equipment.

Because you will be heating your tanks with gas burners, your processing area must be kept free of flammable materials. Keep a fire extinguisher nearby at all times. Du-Lite's Kwikseal oil is a combustible and should be located at least three or four feet away from the gas heated tanks. Never locate an oil tank near the heated tanks in your black oxide line!

Your tanks should be set up on a hard, flat, level surface to eliminate the danger of an accidental spill. If you need to elevate the tanks, you should build a solid, heavy platform to set the installation on.

Set up your equipment as follows: First, place the stand for the tanks in the location you plan to use. You will notice that one end of

the stand is numbered 1 through 4. These numbers correspond to the numbers on the tanks. The stand should be positioned so that these numbers are facing you as you stand in front of the installation. This will be the operator's side of the new installation. Next, place the tanks on the stand, making sure that they are seated in the recess formed by the top angle iron rim of the stand.

Note that tanks #2 and #4 have overflow fittings at top and back of the tank. A small amount of rinse water should run through these tanks constantly to ensure proper rinsing of your parts from one process tank to the next.

Attached to the tank stand are two steel cross bars with U-bolt mounting holes to secure your gas burners in place. Two gas burners 39,000 BTU's each are supplied. These burners are to be placed under tank #1 (cleaner) and tank #3 (black oxide). Your local gas company should be contacted for assembly and connection of these burners to insure proper connection to a main gas line. Burners are equipped with the proper orifices for use with L.P. gas (#49 drill size), unless you specified natural gas (7/64 drill size) when your order was placed.

Once your equipment is set up as outlined above, you are ready to mix the cleaning and blackening baths. You should refer to your complete operating instructions for the Du-Lite Process for specific details of mixing the new baths. Read the operating instructions and other information that comes with your new equipment completely before attempting to mix solutions or operate the installation. The operating instructions and material safety data sheets contain important information which should be fully understood before you use the Du-Lite Process.

Occasionally, after considerable use, it may be necessary to replace a blackening or cleaning bath due to a build up of contamination or simply because of bath depletion from age. Both the cleaner and the black oxide salts are highly alkaline and are considered corrosive materials. These solutions must be treated to eliminate the hazard of environmental damage. Do not dump these solutions directly into sewers, septic systems, or waterways. As the user of these materials, you are required to use and dispose of them in a safe and responsible manner. You must make sure that you comply with any local, state and federal laws when you dispose of these materials. Du-Lite can supply basic guidelines for neutralization of the solutions on request, but you will still need to check with the appropriate authorities before disposal. If oil products used in the Du-Lite process are to be disposed of, it should be brought to an oil collection center. Oil products should never be dumped into a sewer, septic system or waterway.

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