**Gun Bluing**

**WHY GUN BLUING?**

No other activity or line of work in a gun shop or sporting goods store teaches the mechanics of a gun better than bluing. To rebuild a gun, you have to completely dismantle it piece-by-piece, and each of the hundreds of varieties of guns has its own peculiarities. After you have handled so many guns, the whole theory of the mechanics of the various components becomes ingrained in your mind, never to be lost. Further, continued handling of the more popular guns soon leads the gunsmith to know, almost automatically and without looking, which parts are worn and need to be replaced.

There is also a money-making feature—not only is bluing fairly profitable, but it also gives the dealer or gunsmith an opportunity to become better acquainted with his shooting customers. Nothing pleases a gunsmith more than a gunsmith making his favorite gun look nice. As a result, he is inclined to return to the gunsmith who worked such miracles—for bluing does seem to be magic for the uninstructed. So as sights and scopes, slings and gun cases are needed, the sportsman not only buys from the man who did up his gun, he brings his friends along, too.

The original cost of setting up a bluing shop is not great, nor is it necessary to buy a lot of stuff. Bluing tanks, burners, some bluing salts, cleaner, polish, some wheels—and you’re in business. From then on buy as you need. Don’t buy unless you do need.

So far as bluing salts are concerned, we make no claim that our salts are superior to anyone else’s. We do have Bureau of Standards reports that prove some salts claimed to be as good as ours simply aren’t. But let us not kid anybody: there are lots of other bluing salts on the market about as good as ours. We feel we are selling bluing salts to gunsmiths who know their business, to sporting goods dealers and shooters who are past the “sucker” stage. Why should we insult their minds with a bunch of hooey?

The proof of any pudding is in the eating. We guarantee you to be satisfied on a money-back basis. What more should be said?

So, on to business. The quality of a good blue job depends entirely on the gunsmith doing the bluing, not on the salts. If you have a gunsmith who will do a masterful piece of polishing, with all surfaces true and bright, corners sharp, without turned-over screw holes or ground-off screw heads—if he is careful to clean the gun properly before bluing—if he will follow the instructions that go with anybody’s salts—well, he’ll get bluing jobs that are out of this world.

Because of our constant association with many thousands of gunsmiths, gunsmiths, gun dealers, and manufacturers in the bluing business, we feel we can give you the service you deserve. If we can’t after all these years, better we should go to selling raincoats and straw hats!

Bluing can be fun and profitable—full-time or part-time. Shooters are always looking for gunsmiths who will give them honest work.

**WHICH TYPE OF BLUING SHOULD I CHOOSE?**

With so many different types of bluing available, attempting to choose the one most appropriate for your needs can be confusing. Each type has its advantages.

Brownells provides four basic types of bluing: Oxynate® No. 7, hot salts bluing, Dicropan IM™, a hot water bluing, Nitre Blue™ Bluing, a heat blue; Dicropan T4™, Oxpho-Blue™ and 44/40® cold blues.

**OXYNATE® NO. 7**

Our Oxynate No. 7 hot salts bluing is the type most commonly used by firearms manufacturers and offered by more fully equipped gunsmith shops than any other. The advantages are: speed of the operation; uniformity of color; the relative simplicity of the process and a very consistent, durable finish. There are a variety of different types of steels, each that closely matches the original finish in many of the firearms produced commercially within the last 50 years. This is important. For it provides our customers a finish they are familiar with and find desirable. Also, hot salts bluing is what most folks expect from a professional gunsmith. And, since it is done by a hobbyist or tinkerer, it is the popularly accepted mark of the professional gunsmith.

To do the finest possible job of bluing with Oxynate No.7, you’ll need to set up a separate room to keep the steam and humidity generated away from tools or guns. You’ll also need tanks, stands, burners, safety gear and an adequate source of natural gas, propane or electricity.

**DICROPAN IM™**

Hot water blues, such as our Dicropan IM, are updated versions of the traditional “rust blues” that took days or weeks to apply. Dicropan IM will provide a very attractive black color and an extremely durable, abrasion resistant finish. It is completely safe to use on soft soldered, double barrel shotguns. Applying Dicropan IM is a very simple procedure and can be done with as little as one tank and a heat source to get the water in the tank boiling. While more labor intensive than Oxynate No.7 Bluing, Dicropan IM Bluing is an excellent choice for the occasional reclaimer or the shop specializing in double barrels.

**NITRE BLUE™ BLUING**

Bluing can also be done by controlled heating of the part and Brownells NitreBlue is an example of this type of bluing. The process was first used for bluing firearms during the 19th century. The salts liquefied when heated to approximately 275° F. to 300° F. The normal “bluing” temperature is around 600° F. NitreBlue™ Bluing requires very little equipment: the salts, a container to heat them in, and a heat source. By varying the amount of time you submerge your workpiece and the heat of the liquefied salts, you can obtain colors ranging from the straw found on Lugers triggers to the very bright blue found on older Colt revolvers. Because of the high temperatures involved, NitreBlue Bluing should be used on small, non-critical components such as butt plates, grip caps and sights, to avoid overheating any heat-treating action parts.

**OXPHO-BLUE™, DICROPAN - T4™, & 44/40®**

Cold blues, like our Oxpho Blue, Dicropan T4 and 44/40, are ideal for the hobbyist or for the shop that does bluing. It is a very old process that was used frequently by more fully equipped gunsmith shops than any other. The advantages are: speed of the operation; uniformity of color; the relative simplicity of the process and a very consistent, durable finish. It is completely safe to use on soft soldered, double barrel shotguns. Applying Oxpho-Blue™ Bluing requires very little equipment: the salts, a container to heat them in, and a heat source. By varying the amount of time you submerge your workpiece and the heat of the liquefied salts, you can obtain colors ranging from the straw found on Lugers triggers to the very bright blue found on older Colt revolvers. Because of the high temperatures involved, NitreBlue Bluing should be used on small, non-critical components such as butt plates, grip caps and sights, to avoid overheating any heat-treating action parts.

For more information on any of our bluing products, please call and talk with our Technical Support Staff. All are professional gunsmiths and have many years of “hands on” experience with our bluing products. In addition, we have the complete Bluing Instruction Booklet in the industry… we will be happy to send it free on request.

For current product prices, check the latest Brownells Master Catalog or our website.
**BROWNELLS BLUING SYSTEM KIT**

41-Piece Kit Gives You Everything You Need To Start Bluing NOW!
- **Tanks**
- **Stands**
- **Burners**
- **Chemicals**
- **Safety Gear**
- **Accessories**

And... The Best Instructions In The Industry!

"What do I need to start hot salts bluing of guns?" Having answered this question literally thousands of times over the past 75 years, we've put everything you need to do this one complete KIT together.

**EVERYTHING** All the basics - Tanks, Stands, Burners, Cleaners, Salts and Oil that the "other guys" sell - PLUS everything else you need to start bluing guns. Solvents, tank covers, personal safety gear, extra additives and lots more. All for just a few dollars more than those "bare bones" kits.

We'll keep you from bluing a Rewarding, profitable addition to your shop. Compare our KIT to anybody else's... it is the best buy on the market. So, save yourself time and money trying to make a basic "bare bones" package into a working bluing shop. Order our Blueing System Kit and put that time to work making money bluing guns.

Listed below are all the items in the KIT with a brief description of each. Check and compare this value, to any other kit on the market. And remember, we've kept the Best Instructions, the ONLY full-time Tech Support Staff, 60+ years experience and an Unconditional, Money-Back guarantee.

**KIT INCLUDES**

**OXYNATE No.7** - The finest, most reliable Bluing Salts available. Provides a deep, blue-black color on most gun steels (except stainless). Proven in small shops for over 50 years and used by top firearms manufacturers. (2) 40 lb. pails supplied.

**909™ CLEANER** - You can get the kit with your choice of either (1) 8 lb. box of Dicro-Clean No. 909 caustic granules OR (1) gallon of non-hazardous NH-909 liquid
dual steel we could find. Also does a mighty fine job on steel and stainless. We use it 100%.

**BLACK IRON TANKS** - Don't contain your paint. For Cleaning Solution, Cold Water Rinse, Bluing Solution, Hot Water Rinse and Water Displacing Oil. (5) supplied.

**BLUING TANK BURNER** - Sized to provide correct heat for the Bluing Solution. Orifices included for both Natural and Propane Gas. (1) supplied.

**HOT WATER TANK BURNER** - As Cleaner and Hot Water Rinse caustic granules that leave no material burners save fuel. Orifices included for Natural and Propane Gas. (2) supplied.

**TANK STANDS** - Interlock at sides or ends so you can design the layout to fit your shop. (Water Displacing Oil must be located away from Tank Stand). (4) supplied.

**THERMOMETERS** - Proper temperature control is required for successful Bluing and these are made to our specs to work right. (2) supplied. (3) supplied for Bluing Solution and Cleaner Tanks.


**WATER DISPLACING OIL** - After Bluing and Rinseing, this specially formulated oil removes the last chemical residues of water with molecules of oil. Gives complete protection on all surfaces.

**TANK COVERS** - Keeps unwanted crud out, reduces evaporation in Bluing Solution and removes Oil Displacing Oil Tank during storage. Rubber gasket. (2) supplied.

**BLUING PARTS BASKET** - Holds pistons, frames, rifle actions and many other parts in the various tanks. (2) supplied.

**SMALL PARTS BASKET** - Use alone or inside the Bluing Parts Basket. Holds all the smallest parts. (1) supplied.

**BLACK IRON SCREEN WIRE** - Cut and fold into little baskets for pins and screws. (1) sheet supplied.

**BLACK IRON RING** - A great help in hanging barreled actions. (1) supplied.

**GUNSMITH DATA SHEET PROTECTORS** - Protects and other gunsmith reference materials.

**BROWNELLS BLUING SOLUTION CLEANER** - Removes depleted salts and contaminants from the Bluing Solution. (1) pint supplied.

**OXYNATE™** - Helps get good blue-black color on cast iron receivers and other "questionable" steels. (1) pint supplied.

**TCE DEGREASER** - A superb degreaser that removes gun oils quickly and easily. (1) gallon supplied.

**STOP CREEP™** - Helps prevent cooled Bluing Solution from "climbing" over the edge of the Tank. (1) Bar supplied.

**FULL FACE SAFETY SHIELD** - Helps keep caustic splashes out of face and eyes. ALWAYS wear when bluing. (1) supplied.

**B-360 RUBBER GLOVES** - Industrial-grade neoprene to protect hands. (1) pair supplied.

**GUNSMITHS DATA BINDER** - Heavy, solvent-resistant polypropylene. 4-ring binder protects instructions/gunsmith info. (1) supplied.

**SHANE FILTER MASKS** - Keeps harmful polishing and chemical dust out of lungs. (1) Pak of 10 supplied.

**GUNSMITHS DATA SHEET PROTECTORS** - Protects and other gunsmith reference materials.
Brownells
OXYNATE® NO. 7

HOT CHEMICAL BLUING COMPOUND

MEETS Mil Spec C19248AM, Class 1, Grade A

Finest Professional, Gunsmith-Developed, Hot Bluing Salts Available On The Market Today

OXYNATE NO. 7 has been the most popular bluing salts for the professional gun trade for many decades. For quality work (one to a dozen guns per month) the cost of gun cleaning is extremely low. Oxynate NO. 7 is manufactured by one of the country’s chief producers of manufacturer’s chemicals and sold to us by the gun trade by exclusive license. This is mentioned so that you’ll appreciate the vast research laboratories available to us of Oxynate NO. 7 – and that you are using the best gun blue modern science and research can produce.

Our copyrighted instructions are, we feel, the most complete offered to the trade. Every step, every complication, every question of the gun bluer and gunsmith is answered. The answers and suggestions are not from any individual but are those of several thousand gun men who have used Oxynate NO. 7 successfully for so many years.

SPECS:
- 40 lb. (18.1 kg) net weight can or 40 lb. (18.1 kg) net weight drum. Normal mix is 10 lb. (4.5 kg) per gallon of water. Full instructions included.
- B.O.N.™ Crystals
- 1 oz. Dropper Bottle
- 40 lb. Oxynate 7
- 8 lb. Dicro-Clean 909
- 1 pt. (16 fl. oz./473 ml) or 1 qt. (32 fl. oz./946 L) net contents in plastic bottle.

**#082-016** Pint Oxynate "S" $0.00
**#082-030** Quart Oxynate "S" $0.00

Brownells
OXYNATE® "S"

Special Additive For Bluing Heat-Treated Steels & Cast Iron

Something we all have been looking for - for a long time. Prevents red colors from forming on heat-treated steels, makes possible the bluing of 95% of all cast irons. Prevents bath breakdown when a little copper is present, or a little brazing has been done. Produces deeper color. Shoppers in tank time, increases production. Maintains corrosion resistance of the bluing. Altho' it appears a little expensive in the undiluted state, 1 pint will treat up to 8 gallons (2 per oz. at gallon), or 2 operating bluing tanks of Oxynate NO. 7. So - in actuality, Oxynate "S" is one of the cheapest additions you can make to your bluing setup. Full, detailed instructions. Must be added when no guns in tank; wait 30 minutes before beginning to bush all parts of the gun.

SPECS:
1 pt. (16 fl. oz./473 ml) or 1 qt. (32 fl. oz./946 L) net contents in plastic bottle.

**#082-076** Pint Oxynate "S" $0.00

Brownells
BLEED-OUT NEUTRALIZER

Between Polishing & Bluing Rust Preventive

A freshly polished gun, which you have spent hours getting into beautiful condition for bluing, is a prime target for rust if it is not going into the bluing tank immediately. A few hours under some conditions - between final polishing and bluing, can result in fine "silver" spots showing up on the gun after it has been blued. These are a result of microscopic rust forming before polishing, and polishing, and prior to bluing. High powered rust preventives should not be used during this storage period, because they are difficult to remove and, if not completely cleaned off, will result in a "gray" bluing job. Brownells HOLD is the modern answer to in-shop storage of parts, prior to final finishing. It chemically engages free oxygen and neutralizes all acid impurities, including finger print acids). No petroleum additives are included in this new, modern rust prevent; therefore, oily surfaces are not a problem. Polished HOLD-treated parts may be put right into the HOLD™ Cleaning Tank with no change in your regular bluing techniques. Application is either by spray, using the included 1-pint pump spray unit or by immersion. Small parts may also be held in a solution indefinitely in HOLD with no possibility of rust ever forming. HOLD treated gun parts will withstand indefinite in-shop dry storage. HOLD is non-acid, non-alkaline, non-corrosive, non-flammable, inexpensive, and easy to use. CAUTION: Can be used on all metals except aluminum, magnesium, stainless steel, and engine parts.

**#082-000** 1 Gallon HOLD™ $0.00
**#082-003** 4 Gal. HOLD™ $0.00

Brownells
B.O.N.™ CRYSTALS

NEUTRALIZING KIT FOR OXYNATE® NO. 7 & OXYNATE® NO. 84 BLUING SALTS

Makes Bluing Salts Safe For Sewer Disposal

This kit, combined with two locally obtainable chemicals, makes Brownells Oxynate NO. 7 and Oxynate NO. 84 Bluing Salts safe for sanitary sewer disposal. Kit contents (replacement components available separately):
- 50 pound bag of Dry Sulfuric Acid, 100, 0-14 pH Color Test Strips, with color comparison chart for accurate checking of pH level.
- 100 pounds Iodized Potassium Starch Test Strips used to test for any nitrates remaining in the neutralized solution. One glass drop reduces for dispersing 1% Hydrochloric Acid required by the Potassium Iodide Starch Test and Brownells Neutralizing Instructions. The only additional chemicals required are water, which can be purchased locally, and 31% Hydrochloric Acid (also known as 18th Baume Muriatic Acid), available locally or from Brownells.

**#082-073** Neutralizing Kit $0.00

**#082-075** Dry Sulfuric Acid, 50 lb. bag $0.00

**#082-076** 0-14 pH Color Test Strips, 100-Pak $0.00

**#082-073** Potassium Iodide Test Strips, 15-Pak $0.00

**#084-170** 1 oz. Dropper Bottle $0.00

**#076-200-166** Neutralizing Oxynate 7 & 84 Inst. $0.00

**#082-013** 32 oz. Hydrochloric Acid (HCL) $0.00

**#082-000** 1 Gallon NH 909 $0.00

Brownells
NH 909™

Non-Caustic, Non-Hazardous, Safe Pre-Cleaner For Perfect Gun Preparation

Designed specifically for use on guns prior to bluing. Removes all grease, traces of buffing compounds, dirt. Operates at 180°F. Is non-caustic, and the heavy-duty jet keeps it ready for the next use. One gallon makes from 10 to 21 gallons of cleaner. Will clean most work in 10 minutes, extra cruddy parts may take up to 15 minutes.

SPECS: 1 gallon (128 fl. oz./3.8L) net contents in plastic bottle.

**#082-000** 1 Gallon NH 909 $0.00

Brownells
GRIP-BLUE™ BLUING SALTS

Gorgeous "Fire Blue" Colors & No-Scale Tempering — A Master Metal Finisher's Secret, Useable In Any Shop

Turn parts and small pieces a deep, rich, lustrous blue without a finish that’s too hard and prettier than most of the cold blues. The process is really quite simple: Heat the salts up to 570°F - 650°F. (They are NOT expensive! The grimiest parts left untreated can be used up to 20 gallons of cleaner. These may be used up before 20 gallons, but we recommend using up 20 gallons before re-diluting.)

**#082-090** 10 lb. (946 ml) net weight package. $0.00

**#082-005** 8 lb. Dicro-Clean 909 $0.00

Brownells
TCE CLEANER DEGREASER

Fast-Acting, Deep-Cleaning, Chlorinated Solvent-Ozone Safe Replacement For Trichloroethylene

TCE cuts through almost all greases, waxes and gunk, yet because it is completely volatile, does not require hazardous air pollution equipment. We have found TCE to be the very best way to get gunk off prior to bluing, plating or brownelling. Makes an excellent closed-can solvent for really gunked-up parts. The least harmful of the chlorinated solvents. TCE can be diluted with water to make up to 20 gallons of safe, economical, rust and blue removing solution. Removes light rust and oil in as little as 5 minutes, leaves majority of very light rust scale. Works great at room temperature but can be heated to 120°F. to increase speed of rust removal.

SPECS: Available in quart (32 fl. oz./946 ml) and gallon (128 fl. oz./3.8L). $0.00

**#082-055** 1 Quart Steel White Rust Remover $0.00
**#082-055** 128 Gallon Steel White Rust Remover $0.00

*Cannot ship outside Continental U.S. Shipped UPS or FedEx Ground only within U.S.*
**BROWNEILLS RUST AND BLUE REMOVER**

Attacks Only Rust & Blue; Won’t Damage Steel

There are many times when the use of a good rust remover is called for during the bluing operation - old time guns too fragile to polish - guns that have been badly neglected and are not worth spending enough money on to warrant a good polishing job - and guns so badly rusted it would take too much valuable time to strip and put back through the 909 cycle before finishing. Get the parts into the bluing or Parkerizing solution immediately!

We degrease using Trichloroethylene (TCE), or a soak in d’Solve Cleaner & Rinse Tanks. For 909™ cleaning solutions or hot water rinse tanks, you should wait 24 hours after degreasing. The water may still be contaminated with rust from the degreasing process. The parts must be degreased clean and rinse-free before applying bluing or Parkerizing. Parts with this type of finish are more resistant to rust. Thoroughly rinse and dry before applying bluing. Parts treated with Hold will need to go back through the 909 cycle before finishing.

**HOW TO GET IT CLEAN!!**

*To get a really nice, professional result when bluing, Parkerizing, Cleaning, or doing any refinish operation - you absolutely must get the parts clean/rinse tank and provides a convenient fitting spout. Removes quickly for cleaning. Bluing, #9 & 10 picturesque. When using TCE, be sure to use a fume hoods, and be sure to wear a NIOSH-approved type A1P2 respirator.*

**BROWNEILLS WATER DISPLACING OIL**

“After-Bluing” Rust Prevention

Best Possible “After-Bluing” Oil

Removes Water, Neutralizes Salts, Acids & Fingertips

The real professional - and longtime favorite - “after-bluing”, one-step oil and protection treatment. Specially formulated; the molecules of oil actually displace the molecules of water still on the surface of the gun as it comes out of the bluing tank. Gives the gun a completely protected surface, ensuring your time spent on polishing and bluing will result in a professional-looking job each and every time. Serves as a convenient, protective which neutralizes fingerprints, body acids and oils from handling and shooting. Provides a protective film with that properly "oiled" and "protected" feel. It is the perfect after bluing oil for many shooters and gun people. The standard by which other “after-bluing” oils are judged.

**SPECS:**

*Test contents: 12% (32 fl. oz./946 ml) or 1 gallon (128 fl. oz./3.8 L) in metal can, 5 gal. (640 fl. oz./18.9 L) in bulk container.*

*#005-073-32 Qt. Water Displacing Oil . . . $00.00
#005-073-12 Gal. Water Displacing Oil . . . $00.00
#005-073-60 5 Gallons Water Displacing Oil . . . $00.00*
ALUMINUM BLACK
For Black Touch-Up Of Anodized Aluminum
Applies and reacts like Perma-Blue. Ideal for touching up black, anodized aluminum. Used and specified by the Armed Forces and manufacturers of electronic equipment. Produces rich, black finish instantly with no special equipment or skills.
SPECS: 11 oz. (311 g) contents
#167-004-170 Aluminum Black, 3 fl. oz. ....... $ 0.00
- 3 or More - Aluminum Black, each ....... $ 0.00
*Cannot ship outside Continental U.S. Shipped UPS or FedEx Ground only within U.S.

BLUING ACCESSORIES
Much Needed Goodies Make Your Bluing Life Easier

STAINLESS STEEL DIPPER
- Long handled stainless steel dipper for adding water to the Bluing Bath. Bent handle for “side” pouring. Stops spills. Handles a 2 quart (1.9 liter) capacity.
#933-001-000 Stainless Steel Dipper ....... $ 0.00

RINSE TANK BRUSH
- Natural fiber brush, just right for use in the rinse tank.
SPECS: 2.5 cm long bristles, fits 4X4 (10.1cm x 10.1cm) oval 19.5 cm overall.
#671-540-460 Rinse Tank Brush ....... $ 0.00

BLACK IRON WIRE
- Dead soft annealed so bends easily, holds firmly. Not plated - just a light oil coat so cannot contaminate your bluing or plating
SPECS: 18-gauge about .047 (1.3mm). 50 ft.
#038-018-003 Black Iron Wire, 3 coils ....... $ 0.00

HALF TANKS
- Made just half as long as the regular black iron and stainless steel tanks - to hold half as many bluing salts and take less time to heat up. Ideal for handling small parts or small parts bluing when you don’t need to fire up the “big” tanks.
SPECS: Black iron. 6 (15.2cm) x 6” x 20” (50.8cm). Welded seams, rolled edges. Holds 2 gallons of solution.
#082-003-662 Black Iron Half Tank ....... $ 0.00
#082-004-662 Stainless Steel Half Tank ....... $ 0.00

SMALL PARTS BLUING BASKET
- Stainless steel baskets, that’s the size and shape to keep small parts from getting lost in bluing and pickling tanks. Fine mesh screen allows circulation of bluing and pickling solutions. Eliminates hanging on wires. Squeeze to open, spring-loaded handle.
SPECS: Stainless steel. 2 (5cm) dia. basket. 4” (10.1cm) handle.
#515-000-001 Round Ball Parts Basket ....... $ 0.00

BLACK IRON DEEP TANK
- We’ve made a 4” deep version of our 6 wide x 40” long black iron tank that’s great for bluing with our electric heating units. Leaves a working depth of about 5”. Also use for 909™, Boiling Water, and B.O.N.TM.
SPECS: Black iron. 6 (15.2cm) wide x 9’’ (22.9cm) deep x 40’’ (101.6cm) long. Holds 7-1/2 gallons of solution.
#082-003-694 Black Iron Deep Tank ....... $ 0.00

BLUING PARTS BASKET
- Open-mesh, welded wire permits complete solution circulation around small parts, such as gun frames, rifle receivers, and other large parts.
SPECS: Steel. 14”x14” (36.2cm) long x 5”/15.2 cm wide x 2½” (6.3cm) high. 0.45” (1.15mm) thick mild steel.
#082-071-000 Bluing Parts Basket ....... $ 0.00

SMALL PARTS BASKET
- Fine mesh holds all but the smallest pins and screws without a liner, yet allows plenty of solution circulation. Fish out small parts or small parts bluing basket or add legs to make it a stand-alone.
SPECS: 21” (53.3cm) long x 5” (12.7cm) wide x 2½” (6.3cm) high. 0.45” (1.15mm) thick mild steel.
#082-072-000 Small Parts Basket ....... $ 0.00

HOW MANY GALLONS DOES THE TANK HOLD?

To determine the number of gallons of bluing solution in your bluing tank, use this formula (all measurements in inches):

\[
\text{gallons} = \frac{\text{length} \times \text{width} \times \text{depth of solution wanted}}{= \text{gallons solution}}
\]

Note: Oxynate No. 7” uses approx. 10% Salts per gal. of solution, Oxynate No. 84 uses approx. 8% Salts per gal. of solution.

LAUREL MOUNTAIN FORGE
BARREL BROWN & DEGREASER
Non-toxic rust bluing formula produces a beautiful, fine-grained finish. Requires minimal pre-cleaning. Works fast, 4 to 6 applications 3 hours apart. Works best with a “damp box.”
SPECS: 4 fl. oz. (118 ml), 8 fl. oz. (237 ml), 16 fl. oz. (473 ml) net contents.
#519-100-025 2 oz. Laurel Mtn. Brown ....... $ 0.00
#519-100-022 1 qt. Laurel Mtn. Brown ....... $ 0.00

BROWNELL'S COUNTER DISPLAYS
Easy Sales Of Oxpho Blue® & Dicropan T-4®
Let Oxpho-Blue’s toughness and T-4’s fast-coloring ability make sales for you. You get 12 4 oz. bottles in a shipping case that folds up to make its own eye-catching counter display. The product sells itself.
SPECS: 4 fl. oz. (118 ml) bottles (case of 12)
#082-024-412 Oxpho Blue Liquid Display ....... $ 0.00
#082-124-412 Oxpho Blue Creme Display ....... $ 0.00
#082-056-412 T-4 Liquid Display ....... $ 0.00
#082-156-412 T-4 Creme Display ....... $ 0.00

*Cannot ship outside Continental U.S. Shipped UPS or FedEx Ground only within U.S.

NEOPRENE SHOP APRON
Protects Against Chemical Splashes
Heavyweight, brown, Neoprene apron protects clothing and skin from the oils, acids, caustics, greases and solvents encountered in the gun shop. The best apron we have seen for jobs involving hazardous chemicals.
SPECS: Neoprene. 36” (91.4cm) x 46” (117cm).
#100-001-000 Neoprene Shop Apron ....... $ 0.00

BELGIAN BLUE
Herter's Original Formula Blue For Doubles & More
The original Herter’s Belgian Blue formula, now owned by Art’s Gun & Sport Shop, and the results are just as nice as ever. Excellent for soft soldered and for the occasional rebusher who doesn’t want a hot salts bluing setup. Applies easily: Clean the gun thoroughly, boil the metal water, remove, wipe dry and gently swell on Belgian Blue, with no slopes or runs. Return to the boiling water for a few minutes, remove and dry. Infantime steel wool. Repeat steps until the desired color is achieved. Works on all gun steels except stainless. Instruction sheet included.
SPECS: 2 fl. oz. (57 ml) or Quart (32 oz. / 946 ml)
#464-100-016 1 Pint Belgian Blue ....... $ 0.00
#464-100-032 1 Quart Belgian Blue ....... $ 0.00

*Cannot ship outside Continental U.S. Shipped UPS or FedEx Ground only within U.S.
**Brownells**

**FORMULA 44/40® INSTANT GUN BLUE**

- Fast, Easy, Wipe-On, Wipe-Off Application
- Original High-Speed Formula
- Deep Penetrating

44/40 has long been one of the cold-blue standards in the industry, and we here at Brownells are delighted to have purchased original cold blue formula and the legendary name and to keep it available for its many fans.

44/40's familiar bluing action is almost magic; simply dampen a patch with 44/40, wipe it on and wipe it off immediately with a dry one. The coloring action happens instantly and the color penetrates deep into the metal for a long-lasting finish. There's no need to soak or dip for any length of time. Surfaces previous to this blue are easy, too, for scratches, just clean and degrease as you normally would and apply 44/40. As a blue for external/internal parts and pieces, the procedure is just the same. Before applying the finish you want, clean it and wipe-on, wipe-off. 44/40 will do the job beautifully. And, it's great for other jobs around the shop, too. The quick action and deep color make 44/40 an excellent substitute for traditional layout fluids. The steel is darkened quickly and is beautifully uniform across your surface. There's no need to soak or rub for long periods. Surface preparation is just as easy. Bring the surface to the finish you desire, and apply 44/40. It will do the job very well.

**BROWNELLS OXPHO-BLUE®**

- Toughest Cold Blue In A No-Run Creme
- Perfect Cold Blue Dispensers

We took our proven, tough Oxpho-Blue and made it in a creme formula that's really wonderful to work with. You have full control as you wipe it on and it's absolutely won't run off or evaporate away. So, whether you're rubbing it in with steel wool, coarse paper towels or using the "shoe shine" cloth method, you'll love the look of it as you go. You get the same, famously durable, Oxpho finish with less work and waste. But, don't limit yourself to guns, use Oxpho Creme anywhere you might apply a traditional blue. Oxpho-Creme is a black, blue/ black finish, lightweight and won't add or subtract from critical dimensions.

**SPECS:** 4 oz. (118 ml) and 16 oz. (474 ml) net contents.

Can't ship outside Continental U.S. (Limited to 4 bottles per order).

**#084-037-001** Side Spout Bottles $0.00

**#084-037-002** Top Spout Bottles $0.00

**#084-037-000** Squeeze Bottle Combo $0.00

**PILKINGTON CLASSIC AMERICAN RUST BLUE**

- Rich, Authentic Rust Bluing Process

The favorite of custom builder Phil Pilkington who developed it to produce a really rich, blue color that's so fitting when restoring older guns and high grade, custom shotguns and rifles. No damp cabinet or special equipment required. After two applications of the solution, the parts are left to rust for a few hours, then boiled in water, removed and carded. The process is repeated to achieve desired color. After 4 days (11 days apart) until the desired color and depth are reached. Like any true rust bluing process, there's no "quick and easy" way to apply it, but then, nothing’s every really "quick and easy", is it? The 4 oz. bottle will do many guns. Included with the solution is an excellent 8-page instruction booklet describing all materials needed and the full process in easy steps, plus... how to "tune blue" another of Phil’s processes.

**SPECS:** 4 oz. (118 ml) net contents.

Can't ship outside Continental U.S. and Canada.

**#073-200-004** Pilkington Rust Blue $0.00

**Save Polishing Time, Prevent Ripples & Fines.**

Fastest way to polish barrels and magazine tubes with no nips or flat spots. Cheaper and easier to use than a lathe. Just secure the barrel between the non-marring, Delrin® centers, turn on the buffer, and polish the barrel until the buffer and barrel are finished with each other. Then, secure the barrel between the non-marring, Delrin® centers, adjust the buffer and barrel to fit the buffer bracket and clamp to the barrel. The brass barrel spindles, slide it across the wheel, taking the finest possible finish. For more information or to order, call us at 800-742-4999.

**Clymer Barrel Spinnner**

- 1/2" to 1-1/2" Diameter Barrels
- Fits most metal mandrel barrels
- Fastest method of final finishing

**#184-022-002** Std Barrel Spinner $0.00

**#184-026-005** Std Barrel Spinners - Carbide $0.00

**Brownells**

**Dicropan IM™ ONE-TANK KIT**

- Non-Caustic, Hot Water Bluing Systems

Our One-Tank Kit is perfect for the shop with an existing bluing setup, or the beginner with some ingenuity and a tight budget. All the chemicals are here, and we add a tank, some safety gear, and our detailed instructions. You supply the heat source and a stand for the tank, plus a few other odds and ends. Better, even the price, presents a savings of more than 15% over purchasing the items individually.

**SPECS:** Kit includes: One 12 lb. (54 kg) bottle of Dicropan IM, 8 lb. (3.6 kg) container of Dicropan IM & 909™ caustic granules or 1 gallon (3.8 L) of non-hazardous NH-909™, black iron tank, thermometer, two 12 oz. (350 ml) cans of replacing oil, a 5’ x 58” x 3” parts bluing basket, stainless steel wire screen, roll of black iron wire, 100 ct. gunsmith cleaning pads, 1 lb. steel wool, 32 oz. concentrated nitric acid (100 g/l of hydrochloric acid), pair of size 11 rubber gloves, neoprene shop apron, full-face safety shield, and complete instructions.

**#092-905-105** IM “One-Tank” Kit, with Dicropan-Im $909 0.00

**#092-024-032** IM “One-Tank” Kit, with NH-909 0.00

Can’t ship outside Continental U.S. (Limited to 4 kits per order).

**BLUE WONDER GUN CLEANER**

- Deep-Penetration Technology Removes Rust & Leaves Steel Squeaky Clean for Bluing

This fast-working, user-friendly cleaning gel is an excellent pre-bluing cleaner/prep. Cuts through copper, carbon, and lead fouling in bores, gently removes rust from bluing, and breaks down grease and oil on contact. Squeeze a dab onto a bone brush or stick, and run it through the bore for a thoroughly clean bore in minutes. Penetrates deep behind black corrosion and plastic wad buildup, and stubborn carbon residue to break down oxide molecules that bond lead and copper fouling to the bore. Removes corrosive salts left by military surplus ammo and black powder. Even removes oil from oil-soaked stocks and gritty deposits of dried grease, including Cosmoline®. Environmentally safe and biodegradable with a mild scent. Removes oil from oil-soaked stocks and gritty deposits of dried grease, including Cosmoline®. Environmentally safe and biodegradable with a mild scent.

**SPECS:** 4 oz. (118 ml) net contents.

Can’t ship outside Continental U.S. (Limited to 4 bottles per order).

**#100-000-567** Blue Wonder Cleaner 0.00

**Brownells Aluminum Oxide Abrasive Blasting Grit**

- Produces Matte “French Grey” Finishes

By using controlled, abrasive blasting with these extremely fine, 80-micron oxide grits, you can "color," texture "or "tone" any metal surface to produce the desired cosmetic effect. Professional instructions included.

**SPECS:** 4 oz. (118 ml) net contents.

Can’t ship outside Continental U.S. (Limited to 4 bottles per order).

**PILKINGTON RUST BLUE**

- On The Market - Period!

Originally developed for the occasion lent 8-page instruction booklet describing all materials needed and the full process in easy steps, plus... how to "tune blue" another of Phil’s processes.

**SPECS:** 4 oz. (118 ml) net contents.

Can’t ship outside Continental U.S. and Canada.
SANDING BELTS

To Fit Raytech Expanding Sanding Drums
Resin bonded, aluminum oxide. Sold singly.

<table>
<thead>
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<th>STOCK #</th>
<th>GRIT</th>
<th>SIZE</th>
<th>PRICE</th>
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WHAT DO I NEED TO POLISH GUNS?

Here is a quick look at the basic supplies for polishing guns.

First, you need something to turn the wheels. You can use salvaged electric motors from a variety of machines but we like the 1800 RPM BALDOR BUFFER. It’s the number one choice of professional gun polishers and gunsmiths. The long shaft gets the wheels away from the operator for better body clearance. As a car, more horsepower is always better. It turns you a bigger wheel which has a higher surface speed and, therefore, polishing rate.

You can bolt the buffer directly to a bench or table but that can limit access around the wheels for odd shaped objects. Our choice for a rock solid mount would be the NO BUFFER PEDESTAL.

6" or 8" STITCHED MUSLIN POLISHING WHEELS - The workhorse wheels of polishing. Use for cleaning and or roughing with the coarser grits.

6" or 8" LOOSE MUSLIN POLISHING WHEELS - Soft touch for that final ultra smooth swishing of the last few grits. The 50 grit wheel is wide enough for most work without stacking.

POLISHES

Of course, you’ll need polishing compound and our POLISH-O-RAY™ greaseless polishing solution. It is uniform, aluminum oxide abrasive in a water-soluble, glue base removes machine marks, pits and surface imperfections in all types of steel, leaves the parts clean, dry and ready to complete your favorite finish. It conveniently packed in three pound, resealable tubes. For best results, store unused portions of tubes in the refrigerator.

#330-100-100 100 Grit Satin-Glo Compound $ 00.00
#330-100-150 150 Grit Satin-Glo Compound $ 00.00
#330-100-220 220 Grit Satin-Glo Compound $ 00.00
#330-100-500 400 Grit Satin-Glo Compound $ 00.00

BROWNELLS® POLISH-O-RAY®

Shop-Proven Premium-Grade Polish For The Professional

The answer to a gun polisher’s dream! Made to the highest standards of quality with carefully screened, true-sized grits for reliable, repeatable results and a natural, greaseless base that doesn’t leave a residue to mess up buffing or plating jobs. Packed in a formed, flexible plastic tube to stay fresh between uses.

1) Unlike hard drying abrasives, Polish-O-Ray sets up to a medium soft surface without flinty hard flakes which, regardless of grit size being used, can do serious damage to a polished surface.

2) It is easily applied to polishing wheels without stopping the machine. Simply press the wheel to the Buff-O-Ray, the polishing adheres to the moving surface, hardens in a few seconds and is ready for use.

3) Because of its softer nature, a true, ripple-free surface is quickly obtained on all wheels. The best possible polished surface, free from ripples and bounce marks, is your assurance of a superior, professional finishing job. Polish-O-Ray does this for you.

4) Polish-O-Ray has been used by gunsmiths, metal finishers, and aircraft manufacturers since the early 1940’s. Wherever a quality surface, free from chatter marks, scratch marks and imperfections is required, the use of Polish-O-Ray is a MUST. 60 cycle machine men are the first to use Polish-O-Ray in the Southeast except for one firm. Ahhh, and, where else but on a gun does a perfect finish draw more praise and admiration? These beautiful finishes are the reason for Polish-O-Ray’s continuing popularity among our country’s gunsmiths and serious hobbyists.

By following the “Master Metal Polisher’s” technique, it is possible to polish a top quality finish in a minimum of time with P-O-R. Complete instructions are in our Bluing Instruction Booklet (#076-200-115, free) and the book Gunsmith (Kinks). It consists of a main procedure of starting with the coarsest grit and polishing the surface in one direction, then, with the finer grit number on a different wheel polishing at 45° angles to the first “pass”. By following this procedure down through the finer grit numbers, the final surface is unequaled for quality and perfection.

Polish-O-Ray is shipped in a resealable outer bag. Put the tube back in the bag, seal with a twist tie and ALWAYS store all your Polish-O-Ray - brand new or partially used - in the refrigerator for longest life.

Specifications: 2/3 (1.13 KILOGRAM) net contents (9MM) plastic tube
#080-505-140 Polish-O-Ray $ 00.00
#080-505-240 Polish-O-Ray $ 00.00
#080-505-320 Polish-O-Ray $ 00.00
#080-505-400 Polish-O-Ray $ 00.00
#080-505-500 Polish-O-Ray $ 00.00

BROWNELLS WHEEL PREP™

Three Finer-Than-Fine Cake Polishes For Gorgeous Mirror Finishes On Steel, Aluminum And More

“Good Old Five-Fifty-Five” as the boys call it. This is the “secret” that master polishers use to give that mirror finish to the gun after Polish-O-Ray™. For the brightest possible finishes, we recommend hard felt, followed by loose muslin for each grit as you progress through the grits. After the last grit, the freshly polished surface is polished with 100% luster or 0000 grade steel wool to obtain the desired luster or finish. Suggest you experiment to find the combo and sequence you like best in your shop.

#080-555-001 555 Gray $ 00.00
#080-555-004 555 Black $ 00.00
#080-555-025 555 White $ 00.00

555 BLACK - The coarsest of the three, so you can move to the 555 family sooner. Great as a “Coloring” polish for aluminum after the final sanding steps. Follow with “Gray” on steel, skip to 555 after the 555 Black.

555 WHITE - For the absolutely most gorgeous finish you’ve ever seen, follow 555 Gray with this. Often used to buff plated surfaces, this grade takes out 555 Gray marks leaving a mirror finish. Does a nice job on aluminum too.

#080-555-002 555 White $ 00.00

BROWNELLS® 302 STAINLESS STEEL BRUSHING WHEELS

Super-Soft Carding Wheel For Rust/IM Staining At Economical Price

For our fans by Ray Hall, Griffith, IN, these baby-soft wheels are perfect for carding between coats when rust bluing, or when using the Hot Water Method with Dicropam IM Bluing Solution. Won’t remove metal, or give satin look. Specifications: 6” (15.2cm) diameter wheels available in 2 row and 4 row. 0025” stainless steel wire. Staggered rows of 1/16” (.444cm) long, tufted bristles. 1/4” (6.5mm) hole through 1/2” (15mm) diameter wood center (drill to fit). 2 row has 1/16” (.159mm) diameter wood center (drill to fit). 2 row has 1/16” (.159mm) white, 4 row has 1/16” (.159mm) white, 5/32” (.16mm) black. Each wheel is net weight 1.2 lbs.

#350-164-581 2 Brush Wheeling Brushes $ 00.00
#350-164-631 4 Brush Wheeling Brushes $ 00.00

BROWNELLS® POLISHING GLOVES

Stop Rust-Causing Fingerprints

Cotton canvas gloves keep finger prints off freshly polished steel, and keep your hands clean while polishing, too. Stretch knit cuff for stay-in-place fit.

Specifications: Industrial cotton, off-white. Sold in pairs of 6 pairs only.

#599-000-001 Polishing Gloves, 6 Pr. $ 00.00
**WHEEL CLEANING BRICK**

Restores Polishing & Buffing Wheels

Crystalon block quickly knocks off abrasive and residue from the surface of felt, muslin, felt and grinding wheels.

**SPECS:** 2.5” (6.35cm) high x 2” (5cm) wide x 4” (10.1cm) long.

#657-024-000 Wheel Cleaning Brick $ 0.00

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**FELT POLISHING WHEELS**

Professional, Gunsmith-Proven

Finest quality 1” wide felt wheels, proven fully selected and factory trued (final touch-up truing may be required.) Only the closely controlled density of felt wheels will give the superb finish that marks the real professional. Complete instructions on Polish-O-Ray”-tube describes felt-wheel technique. It is best to use a different wheel for each polish. ’1” or under, use 6” wheels at 3600 RPM, ’1” or over, use 8” wheels at 1800 RPM, ’1” or over can use 10” at 1800. ’10” for expert finishers only. Use the soft felt for most work, medium, or hard wheel for 555™ Polish. 

**SPECS:** 1” (2.5cm) thick. All made with 1/2” (12.7mm) arbor. Adapters convert to 1/2” (12.7mm), 9/16” (14.3mm), 5/8” (15.9mm), 7/8” (22.2mm). One Adapter supplied with each wheel (except 10”).

**SOFT FELT POLISHING WHEELS**

**SPECS:** 1” (2.5cm) thick. All made with 1/2” (12.7mm) arbor. Adapters convert to 1/2” (12.7mm), 9/16” (14.3mm), 5/8” (15.9mm), 7/8” (22.2mm). One Adapter supplied with each wheel (except 10”).

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**MATTE & CARDING WHEELS**

**SPECS:** 1” (2.5cm) thick. All made with 1/2” (12.7mm) arbor. Adapters convert to 1/2” (12.7mm), 9/16” (14.3mm), 5/8” (15.9mm), 7/8” (22.2mm). One Adapter supplied with each wheel (except 10”).

**FELT BOBS MANDREL MOUNTED**

Get Into Those Tight Places

Ideal for polishing around trigger guards, cylinder flutes, ramps, hammers, triggers, etc. Made of best hard felt. Use with Polish-O-Ray™.

**STOCK #** | **DIAMETER** | **FACE** | **MANDREL** | **PRICE**
--- | --- | --- | --- | ---
#893-500-025 | 1/2” (12.7mm) | 1/16” (1.5mm) | 1/16” (1.5mm) | $ 0.00
#893-750-025 | 1/2” (12.7mm) | 1/16” (1.5mm) | 1/16” (1.5mm) | $ 0.00

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**BROWNELL SISAL WHEEL POLISHING**

Get the Right Grit & Base For Effective Sisal Wheel Polishing

Get fast cut and color on steel when used with Sisal Wheels. Alumina abrasive and tallow base loads easily and lasts longer. Use with 1 hp or more out saving or burning. Fine, Cuts and colors quickly, approximates a #240 Polish-O-Ray™ Finish. Medium; for buffing and colorizing out in one operation. Coarse; removes scratches and tool marks without excessive polishing. 

**SPECS:** Packed in 3 lb. (1.4kg) cardboard tube.

**STOCK #** | **ARBOR** | **PRICE**
--- | --- | ---
#899-599-100 Fine Sisal Polish | $ 0.00
#899-599-105 Medium Sisal Polish | $ 0.00
#899-599-110 Coarse Sisal Polish | $ 0.00

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**CARDING BRUSHES**

**GUNSMITH CARDING BRUSH -** Compact head provides better through cleaning. Three rows of soft, “005,” stainless steel bristles won’t scratch through existing caustic blued finishes. 7-ply, laminated, hardwood handle. 

**SPECS:** 0.05” (0.7mm) diameter bristles, 1/8” (3.1mm) long, 1/8” (9.5mm) wide. 1/16” (1.5mm) long, 1/16” (1.5mm) wide. 1/16” (1.5mm) long, 1/16” (1.5mm) wide. 

**STOCK #** | **ARBOR** | **PRICE**
--- | --- | ---
#832-837-750 | 1/16” (1.5mm) | $ 0.00

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**HAND CARDING BRUSH -** Cards light rust from any part without scratching. Can be used on stainless and stainless steel. Curved hardwood handle.

**STOCK #** | **ARBOR** | **PRICE**
--- | --- | ---
#809-091-006 Hand Carding Brush | $ 0.00