



Metal Finishing Systems

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PRESTO BLACK® BK1 Mini-Blackening Kit

Operating Instructions

PRODUCT DESCRIPTION

The PRESTO BLACK®BK1 Mini-Kit is a complete 7-tank blackening line designed for tool room scale blackening of iron and steel components. The BK1 Mini-Kit utilizes the PRESTO BLACK® cold blackening process and includes all the equipment and chemical products needed to operate a 5-gallon scale process line. Any non-stainless steel or iron component can be blackened in the BK1 line.

The BK1 Mini-Kit includes the following components:

- 2 steel tubs and lids
- 5 plastic tubs and 2 plastic lids
- 1 hotplate (110V, 1100 watt)
- 1 gallon SAFE SCRUB® biodegradable liquid cleaner
- 1 gallon SAFE PREP® surface conditioner
- 1 gallon PRESTO BLACK® MKP make up blackening concentrate
- 1 gallon PRESTO BLACK® RPL replenisher
- 5 gallons DRI-TOUCH® PLUS IRP3 rust preventive
- Complete instructions, tank labels and Material Safety Data Sheets for all products

SETTING UP THE TANK LINE and MIXING THE CHEMICALS

Begin by attaching the enclosed tank labels to the empty tanks. Then, fill each tank, as described below:

- Tank 1** Steel Cleaning Tank. Attach SAFE SCRUB label. Then, mix ½ gallon SAFE SCRUB liquid cleaner into 4.5 gallons of tap water. Set the tub on top of the hotplate and heat to 150°F.
- Tank 2** Plastic Rinse Tank. Attach RINSE label. Then, fill with cold tap water.
- Tank 3** Plastic Surface Conditioning Tank. Attach SAFE PREP label. Then, mix ½ gallon SAFE PREP surface conditioner into 4.5 gallons of tap water.
- Tank 4** Plastic Rinse Tank. Attach RINSE label. Then, fill with cold tap water.
- Tank 5** Plastic Blackening Tank. Attach PRESTO BLACK label. Then, mix ½ gallon PRESTO BLACK MKP Make up concentrate into 4.5 gallons of tap water. Stir.
- Tank 6** Plastic Rinse Tank. Attach RINSE label. Then, fill with cold tap water.
- Tank 7** Steel Oil Tank. Attach DRI TOUCH label. Then, fill with DRI-TOUCH PLUS IRP3.

Normal tank heat-up time is 30-45 minutes. Once heated, the tank line is ready for blackening.

Before Using This Product – Please Read, Understand and Follow all the Precautions shown on the Product Label and on the Material Safety Data Sheet.

The Material Safety Data Sheet can be found on our website: www.birchwoodcasey.com

PROCESSING PARTS through the PRESTO BLACK LINE

Most parts can be carried with steel or plastic-coated (Romex style) wires. Very small parts can be processed in bulk by carrying them in a mesh basket. Mild agitation during each immersion is helpful. Rusty or scaly parts should be bead blasted first. Then, use the following sequence:

- Step 1 CLEAN in Tank 1. Immerse parts for 5 minutes at 150°F.
- Step 2 RINSE in Tank 2 for 20 seconds.
- Step 3 ACTIVATE SURFACE in Tank 3. Immerse for 1-2 minutes at room temperature.
- Step 4 RINSE in Tank 4 for 20 seconds.
- Step 5 BLACKEN in Tank 5 for 2-4 minutes, or until parts are a uniform gray/black.
- Step 6 RINSE in Tank 6 for 20 seconds.
- Step 7 SEAL in Tank 7. While parts are still wet from the rinse, immerse in sealant for 1 minute. Remove parts and allow to drain and dry.

That's it! The parts are now ready to be assembled or packaged.

All the solutions in the line are completely stable in storage and will deteriorate except through blackening. Cover the four chemical tanks between uses to keep dust and dirt out of the solutions. Also, it is a good idea to dump and re-fill each RINSE tank with fresh water OFTEN -- usually every 10-30 square feet of parts processed -- in order to prevent contamination of chemical solutions by residues carried in from previous tanks.

LINE MAINTENANCE

As parts are processed, the solutions will gradually weaken and work more slowly. Once this becomes noticeable, the solutions can be strengthened by replenishing with fresh concentrate. Add about 1/3 the amount used to originally mix the tank. Or, test the solutions by using the CCK-1 TEST KIT, available from BIRCHWOOD CASEY. As the solutions age or become saturated with oil or iron, they should be replaced with fresh solutions – about every 4-6 months under normal workload conditions.

The BK-1 Kit chemicals should be sufficient to operate the process line for 4-6 months and will cover 2000-3000 square feet of surface area. Replacement chemical products can be purchased, as needed, from BIRCHWOOD CASEY. Please see the enclosed price list.

Thanks for your interest in BIRCHWOOD CASEY products! Please feel free to call us at 1-800-328-6156 if there are questions.

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