

Water Stain Removal

Staining due to trapped moisture is common for wrapped poles that remain wrapped for elongated periods of time.

NOTE: To help reduce the risk of staining, Hapco strongly suggests to unwrap all wrapped poles as soon as they are received.

However, if staining has already occurred, the following procedure may be followed to help remove the stain(s) and regain the original finish of the pole. To do so, the following materials will be needed:

Required Materials

- Stainless Steel Wire Brush
- Scotch-Brite™ Pad
- 80 Grit, or Higher, Aluminum Oxide Sanding Belt (if pole is satin finished)
- Touch Up Paint (if pole is painted)
- Cleaning Chemicals (optional)

Please note that cleaning chemicals may not be needed to remove stains. They may only be necessary for severe staining. Use cleaning chemicals at your own discretion and adhere to all instructions/safety information pertaining to your cleaning chemicals of choice. Please also note that painted and/or anodized poles may have adverse effects to some cleaning chemicals. For this reason, we suggest that the cleaning chemicals be tested on a small, relatively hidden area of the pole to check for effects on the finish before using on the stain(s). Instructions for several different cleaning chemicals are appended to this document.

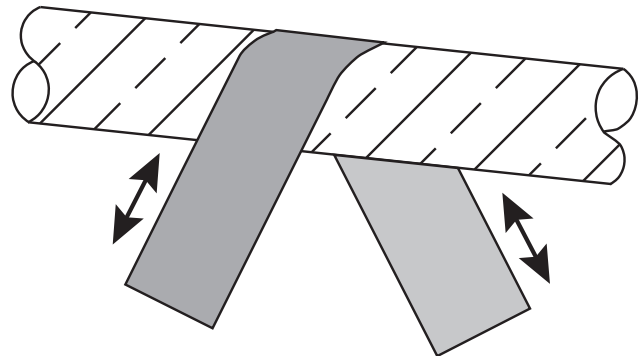
Also note that for the below procedures, all rubbing motions should be in the horizontal plane, about the circumference of the pole.

Cleaning & Finish Repair Procedure

1. Check the severity of the stain.
 - A. Will a Scotch-Brite™ Pad remove the stain?
 - B. If not, will a Stainless-Steel Wire Brush remove the stain?
 - C. If not, will a cleaning chemical remove the stain?
2. Start removal process with the appropriate choice of A, B, or C from Step 1
 - A. If '1A,' rub the blemished area until the stain is no longer visible.
 - B. If '1B,' rub the blemished area with the Stainless Steel Wire Brush until the stain is gone.

Note: If Steel Bristles are used, rust may set up over time causing the appearance of a stain in the brushed area. The Stainless Steel Wire Brush will leave some abrasive marking/scratches. To prepare for sanding (See 3A), rub the affected area with a Scotch-Brite™ Pad to help smooth the scratches.

- C. If '1C,' see cleaning chemical instructions (BELOW). If stain is lessened but still visible after chemical treatment, proceed with Step 2.B.
3. Once the stain is removed and the area prepared, proceed with one of the following:
 - A. Painted Poles: Apply touch up paint until an even finish is obtained.
 - B. Sanded Poles: Cut the Sanding Belt so that it is a strip rather than a continuous ring. Wrap the strip around the pole, focused on the affected area. With an end of the strip in each hand, rub the strip back and forth in a "shoe shining" motion until a uniform sanded finish is obtained.
 - C.



4. Repeat process until all stains are removed.

If this process is followed, all stains should be removed and the pole should be at its original factory appearance.

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Cleaning Chemical Instructions

The following are options to try in removing stains from a shaft in the order of least reactive to most reactive (please follow safety procedures and not let chemicals come in contact with skin or other body parts – if you do come in contact with the chemical(s), please follow directions on the container or contact a doctor immediately for advice – if chemicals are ingested, contact your local poison control hotline immediately). Please dispose of chemicals carefully in correlation with all local and federal guidelines after use.

1. Run a stream of warm or cold water over the stained area using low to moderate pressure from a water hose. Use of a soft cloth may be used to gently rub the affected spot.
2. Mild liquid soaps can be used to aid in removal of the stain. If the pole is painted or anodized, a small spot should be tested first to verify the finish will not be damaged by the product being used.
3. The solution of Lemon oil and Pumice or Pumice Hand Cleaner with soft rags can remove some stains.

NOTE: For the following options, always test a spot before proceeding due to the chemical nature of these products. These could cause damage to anodized or painted finishes if not used carefully. For Anodized poles, soap and water is typically sufficient to clean any dirt or stains and the following options are not suggested.

4. Household cleaners such as 409, Lysol, or Texize can be applied with a soft cloth and applied in a circular motion. It is best to rub around the shaft, in the same direction as the sanding marks, to prevent scratches or scarring.
5. Naval Jelly, Zepalum Sodium Hydroxide, or Diluted Drano (50/50 concentration with water) can be used and applied in the same manner as #3, making sure to rinse clean when complete.
6. Aluminum Alloy Wheel Cleaner purchased at most retail stores handling automotive supplies. This cleaner should be sprayed directly onto the stained area per the bottle's instructions. A soft cloth should be used to clean the area, in the direction of the sanding marks. In severe cases, the use of a stainless-steel wire brush can be used in the direction of the original sanding marks. Depending on the severity of the stain, the process may need to be repeated several times to eliminate the entire stain. NOTE: If steel bristles are used, rust may set up over time causing the appearance of a stain.

7. Ox-Out 536 is a strong chemical cleaner made by Chemclean Corp. Jamaica, NY, (800) 538-2436. Some of this cleaner is normally stocked by Hapco (Item No. 79935) or may be found at some welding supply dealers. This chemical should be applied directly to stained areas of the pole with soft cloth or sponge, allowed to react and rinsed away with water. The stains will initially whiten from use of this chemical but oxidation of the pole with time will blend in the whitened areas.

Notes to remember:

Aluminum can be exposed to almost any solvent for a short period of time without any adverse effects. If a cleaner contains oil or wax, a dry cloth should be used to help remove.

Heat accelerates chemical reactions. Cleaners may become overactive or may evaporate too quickly in hot temperatures. It may also create streaks leaving an improper finish. Cold temperatures inhibit the chemical process. Try to clean on a mild day in shaded areas.

Spot testing. Place solution on unobtrusive portion of the finish (the part below ground or side away from normal view) in concentration and manner you plan to use for the same length of time. Rinse clean, let dry, and inspect. Check painted or anodized poles for softening/dissolution of color in grain.

NEVER mix chemicals for your own safety.

NOTE: DO NOT let chemicals come in contact with other materials or yourself.