## **TECHSOLUTIONS**





VOLUME 04

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# IMPROVE PRESS PERFORMANCE THROUGH ROLLER MAINTENANCE

At PRISCO, one way we add value to your business is by helping you train your personnel and improve the performance of your presses. Because we deal—in depth—with so many printers, we've had the opportunity to develop programs that help solve problems. PRISCO has developed a series of procedures to help you run your pressroom more efficiently and productively. Each one focuses on a specific pressroom issue, so it doesn't take a significant commitment in time to generate process improvements that translate savings to your bottom line!

Why should I be interested in Roller Maintenance? In this issue, we address the importance of "Roller Maintenance." Why focus on rollers? Because press chemistry performs at its peak efficiency when the rollers are clean, properly set, and glaze-free. By eliminating this variable, you have removed one possible reason for poor-quality printing.

What causes roller problems? The surface of new rubber rollers is covered with "hills and valleys" that facilitate ink transfer down the roller train to the plate. To check their condition, use your senses of sight and touch. Rollers should have a dull, velvety appearance, and there should be a slight drag on your finger as you move it lightly along the roller's surface.

If the rollers are shiny with a smooth glassy feel, they are glazed. The surface of glazed rollers cannot transfer ink effectively; this forces the pressman to run more ink and water than is necessary to achieve required ink densities. High levels of ink and water can result in dot gain, mottled solids, hickies, slow drying, reduced quality, and likely increases in spoilage or unplanned waste.









#### What are four types of glazes that can impact rollers?

**Aqueous glaze**: paper dust and lint, residual gum and dried fountain solution. This type of glaze is removed by D-Glaze during the cleaning process.

**Glaze from ink and varnish**: residual resin, waxes, and pigment; this is removed by the solvents in our standard blanket and roller wash products.

**Solvent-derived glaze**: residual fountain solution and ink solvents as well as solvents from poor quality roller washes; this type glaze is also removed by our blanket and roller wash products

**Salt-related glaze**: calcium carbonate from paper coatings and alkaline papers, calcium from tap water and certain pigments (especially red ink pigments), and calcium citrate that can form from use of a citric acid-based fount. Hardness minerals from tap water can also contribute. Our decalcifying rinse products (Alkaline Paper Roller Rinse and Crystal Clear), as well as Crystal Clean Gel, all remove glaze components.

#### TO REMOVE GLAZE COMPONENTS - FOLLOW THIS PROCEDURE:

- 1. Wash up rollers if they're still inked up.
- 2. Back off wash-up blade and apply D-Glaze. Idle the press for 3 to 5 minutes.
- 3. Engage the wash-up blade and rinse the rollers with Prisco roller wash.
- 4. Rinse the rollers with warm water.
- 5. Apply a PRISCO decalcifying rinse or gel-type product to the rollers as per label instructions. Idle the press for 3 to 5 minutes, then engage the wash-up blade.
- 6. Rinse the rollers thoroughly with water.
- 7. Next, rinse with roller wash.
- 8. Apply Eezy Klene to the rollers and idle the press for 3 to 5 minutes. Engage wash-up blade, rinse with roller wash and then rinse with warm water.
- 9. Check roller stripes, especially the ink forms to the inside vibrator. Accurate settings make the press easier to control by improving consistency and quality.
- 10. Check durometers for correct roller hardness measurement. Replace any that are too hard or in poor physical shape. Stripe any rollers that are replaced.
- 11. For rollers with an extreme deposit of calcium, remove the rollers from the press and hand clean with PRISCO Salt Crystal Remover.

Your local Prisco office is happy to answer your questions:

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After rinsing, rollers should appear dull and most of the pigment stain should be gone. The rollers may or may not be velvety-smooth to the touch and have increased drag: that depends on the age of the rollers and just how badly glazed they were.