

Tech Talk #C14

New Coater Start Up Procedures

Tower Coater

ROLLER AND PRESSURE SET-UP:

- 1. The first step is to back off the pressure on both metering and applicator rollers. Start circulating the coating into the fountain with the pan roller operating at about 30% of maximum speed. Check the flow rate of the coating and make sure that the flow rate to the fountain does not exceed the flow rate back to the drum.
- 2. Begin to set the nip between the metering roller and the applicator roller. Adjust in small increments until a "heavy" amount of coating can be seen evenly across the applicator roller. Stop the unit and reverse it. Stop the unit and check the contact stripe. Adjust the pressure to achieve a 4-6mm (.157-.250") stripe. Start the unit and allow it to run for about ten seconds. Stop the unit and engage the applicator roller to the blanket. On a standard compressible blanket the stripe should be 4-6mm (.157-.250"). On hard surface products, such as Cyrel plates, the stripe should be 4mm (.157").
- 3. Set the pan roller speed to half the maximum speed. Run 25 sheets through the press. Look for any break in a smooth lay of the coating and any beading along the tail and the sides of the sheet. If the sheet has beads along the tail or sides, increase the nip between the metering roller and applicator roller by 1mm (.039"). A break in the coating indicates that not enough coating is being applied. Decrease the nip between the metering roller and applicator roller by 1mm (.039"). Run 25 sheets and inspect. If this helps, but there is still too much coating on the sheet, reduce the pan roller speed by five points, and run another 25 sheets. This procedure can be run again if there still appears to be too much coating. Once the coating appears smooth, even and without beads, run another 25 sheets in print mode putting ink on the sheets. The sheets should be dry to the touch within 5-10 seconds. There should be good gloss on the sheet and no ink on the coater blanket. If this is the case, run another 500 sheets. Stop the press and rack the 500 sheets. Let the sheets rest for 15-30 minutes, and then check the load.

4. When you are assured that the rollers have been striped properly, your attention should turn to impression cylinder pressure. On many newer presses, this setting is automatically set at the console, but it is usually wise to check the settings manually. On older presses this procedure will be necessary. To ensure that you have attained the lightest kiss impression, back off the impression cylinder impression in increments of .002" (.050mm) until the coating image breaks on the sheet. At that point, add .002" (.050mm) pressure and you should have reached optimum pressure. On very uneven sheets you may have to add an additional .001" (.025mm) of pressure.

Anilox Coater

Many of the adjustments made on a Tower Coater are automatic on the Anilox Coater system. Coating weight is determined by the anilox roller screen value and angle, as well as the shape and size of the reservoir cups in the roller. In addition, the doctor blades clean excess coating off the anilox roller prior to application. Blanket packing, the stripe between the anilox roller and the blanket and impression cylinder pressure are the only adjustments that can be made. If the blanket is packed correctly, the stripe is within specifications (6mm, .250") and impression cylinder pressure is correct, but there does not appear to be enough coating on the sheet, this is usually a function of dried coating building up in the anilox roller cells. This will necessitate a thorough clean up of the anilox roller. Your Prisco Representative can assist you in providing the appropriate products to accomplish this task. The complete cleaning procedure is detailed in the Tech Talk entitled Anilox Roller Cleaning And Maintenance

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