

TECHNICAL BULLETIN – DDR05

SUBJECT: CHROME PLATED DRYER ROLLS START-UP PROCEDURE

The following information is presented as a guideline for starting up chrome plated dryer drums.

A. NEWLY CHROMED DRUMS

1. Some manufacturers recommend washing the chrome surface of newly chromed drums with a hydrogen peroxide solution (about 3%), and allowing the drums to dry at room temperature for several hours. The process is repeated and a test is made with water to check the chrome surface passivity. Water should wet the surface in a film and not form water droplets. If some areas form water droplets on the chrome surface, the procedure must be repeated.
2. The initial heating of a newly chrome-plated drum should be made over a 3 to 4 hour period, with the drums in rotation. The steam pressure should be increased in increments of 5 to 10 PSI every 15 minutes over this period of time, to arrive at full operating pressure. Condensate should be discharged into the atmosphere to avoid a build-up of condensate in the drums at lower pressures. If possible, record the initial warm-up time and pressure increments, for historical record purposes, for a particular set of dryer drums.

B. NORMAL START UP OF DRYERS

Dryer drums should be preheated to operating pressure in a 1 1/2 to 2 hour period prior to production. The drums should be rotating, and the condensate from the drums should be diverted to a low back-pressure vent to avoid build-up of condensate in the dryer drums. When sufficient pressure is reached, the condensates can be diverted to the condensate traps for discharge to the boiler condensate return system. It is desirable to maintain a chart of the dryer drum operating pressure over time, in order to confirm that the proper pre-heat start-up procedures are being followed.

C. IN GENERAL

1. Knives should not be in contact with the drums during the start-up period. The knives should be in contact with the drums only during production with product on the drums.
2. Prior to starting the drums in rotation, check to make sure that nothing is between the drums and that the gap between the drums is adequate, in order to avoid contact between the drums.
3. End dams should not be under tension during the warm-up period.

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