

## Steam Trap Upgrades at Corrugator Packaging Plant Improve Heat Transfer and Extend Life

**Challenge** A corrugated packaging plant in Kentucky was experiencing significant condensate buildup in its heated rolls. Several steam traps that are required to remove the condensate were found to have failed. None of the steam traps were equipped with protective strainers or blowdown valves and had become clogged with debris causing the condensate build-up. The excess condensate was restricting heat transfer at the rolls and hot plate zones.

**Solution** Kadant Johnson worked with the maintenance and production supervisor to determine the best solution for this identified problem. Kadant Johnson 45-Series steam trap banks were selected to upgrade the existing trap system. The steam traps carry a five year no-touch warranty. The installation occurred on all three single facers including preheaters, the triple stack machine, and the three hot plate sections. Each bank was installed with steam traps isolation ball valves, check valves, strainers, and blowdown valves with drain piping to a safe location.

**Results** The production supervisor saw immediate gains in heat transfer and was able to reduce the amount of wrap arm on the machine to manage the excess heat. The maintenance manager was able to establish a preventive maintenance schedule using the blowdown system to extend the life of the steam traps, keep condensate flowing out of the heated rolls, and improve the overall health of the steam system.

### Highlights

- Flooded heated rolls and hot plates due to failed steam traps
- 45-Series steam traps with blowdown system installed
- Increased heat transfer and extended life
- Five year no-touch warranty