

### Steam Trap Solution For Coffee/Milk Production Lines



During the COVID crisis, Saputo Inc., a Montreal based dairy processor, was having steam application issues in their coffee/milk production lines. After investigating, they learned the current thermostatic capsule type steam trap proved to be unsuitable for this application. The application called for the coffee/milk mixture to pass through the steam traps. This was followed by a cleaning procedure (SIP) where steam is used to clean the process piping. During SIP, their current trap would frequently become blocked with residue from the coffee/milk mixture and subsequently failed in the closed position. This was a major issue. The trap failure created the inability to discharge condensate which subjected the owner to water hammer and, more importantly, product contamination.

The short-term fix for Saputo was to replace the failed trap with a ball valve. During the SIP process, they would fully open the ball valve which corrected the water hammer and prevented damage to their heat exchangers. However, this created other issues for the plant. They soon realized the trade off to vent live steam to the atmosphere was costly due to valuable energy being lost.

Bestobell-Aquatronix is the representative for the Bestobell Steam Traps and Steriflow Food & Beverage product lines, divisions of Richards Industrials. After meeting with the Saputo plant personnel, Bestobell-Aquatronix proposed a Bestobell Delta Element Bimetallic Steam Trap for sanitary applications as a solution to resolve the water hammer and product contamination related to the incumbent trap failure. This trap was selected due to both the thermostatic and the thermodynamic forces acting on the bimetallic element. The flashing on the condensate outlet of the steam trap would keep the orifice clean and avoid blockage during SIP cleaning. The Bestobell traps' bimetallic element has a more robust design and offers a standard 3-year warranty.

Saputo installed a DS12 Series drain and tracer steam trap in the application. After several months of use, it was decided that the Bestobell DS12 Steam Traps were the proper trap selection for this difficult application. There are no signs of blockage, and this trap has created better condensate flow. The DS12 Steam Trap has become the preferred steam trap for this process and SIP application.