



ENVIRONMENTAL TECHNOLOGY

## Annual savings of over \$2.6 million

A food and beverage customer was experiencing high leakage and contamination in their process fluid on the single pass flow through system they were operating.

Single pass flow through systems are commonly found in the food and beverage industry, at one site AESSEAL® found that the 726 pumps on site were consuming more than 1 million US gallons per day of water. It was found that 405 of the flow control devices were set at maximum flow leaving the potential for uncontrolled internal leakage resulting in contamination of the process fluid. Upon further investigation it was found that 79 of the seals were leaking a minimum of 8,000 US gallons per hour (192,000 US gallons per day).

AESSEAL® proposed replacing the single pass configurations with an SW2™ Water Management System. The Water Management System is a close loop solution that connects directly to the plant water supply. The pressure of the barrier fluid can be set using a regulator for each seal so that it is 1bar / 15psi above the pump stuffing box pressure. This pressure differential ensures that the process fluid does not contaminate the barrier fluid and that the seal faces are provided with a clean fluid film. The barrier fluid is circulated from the seal to the tank by a thermosyphon effect. These systems eliminate the excessive water usage while improving the seal reliability (through optimisation of the seal environment).

The customer placed an order for 450 SW2™ Water Management Systems, which will yield an annual saving of over \$2.6 million. The investment in the upgrade was recovered in just 4.5 months.

## 'Return on investment in just 4.5 months'

Industry:	Food & Beverage
Product:	SW2™
Payback Period	4.5 Months
Savings:	\$2.6 million per year
Reference N.O:	CH01814

