

# BELT PRESS CASE STUDY



## Dairy



*Sequential Batch Reactor (SBR) system.*



*HydroCal 1.0 meter Stainless Steel Belt Press system.*



*Sludge cake with no free water.*

### Problem:

This dairy located in Northern California is a major supplier of consumer milk products. The plant had been discharging their wastewater to the local sanitation plant untreated. Due to industrial growth in the area, the sanitation plant could no longer accept the dairy effluent. The dairy, therefore, selected and installed a Sequential Batch Reactor (SBR) system to treat their wastewater in 1988. The plant consisted of two- (2) aeration tanks and a settlement tank combined into one unit and works on a time cycle system.

The wastewater from the plant goes into a holding tank from where it is pumped into the No. 1 aeration basin for two hours. Here it is aerated for four hours, then allowed to settle for two hours. After a second cycle of aeration, the clean water is decanted for one hour. While this process is carried out, the raw effluent is pumped into the No. 2 aeration basin and the settlement tank. When the settlement process is in operation, solids must be drawn from the bottom of the tank and transferred to a holding tank. The dairy's attempt to de-water the solids in the holding tank by passing it through a ultra filtration unit to achieve a cake form was unsuccessful. Ultimately, they looked for an alternate solution.

### Solution:

A Hydrocal belt press system, including ancillary equipment, was installed to solve their de-watering problem. The cake coming off the belt press is more than acceptable at the local land fill, and the dairy is extremely satisfied with the belt press system.

### DEWATERING RESULTS from a Dairy Installation

<u>Flow Rate</u>	<u>Influent</u>	<u>Effluent</u>
40 GPM	1% solids	16% cake dryness*

**Operation Time:**  
8 hrs/day, 5 days/week, 12 mo/yr

\* with no free water leaching

## The Solution is Clear.

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