

CONTROL 
TECHNIQUES

THE DRIVES BEHIND SWISS CHEESE

LEU ANLAGENBAU AG | FOOD & DRINK

DRIVE OBSESSED

CAPACITY TO HANDLE UP TO 180 BOARDS/HR

LEU Anlagenbau AG of Uetendorf, a Swiss manufacturer of specialist machines for the automatic selection, rotation and washing of cheeses, has standardised on AC drives from Control Techniques.

Overview

- Excellent customer support
- Extremely reliable
- Compact drives

The Challenge

Approximately 1200 dairies produce around 170,000 tonnes of cheese each year in Switzerland.

Much of it is in the form of large blocks or 'wheels' up to 1 metre in diameter, weighing anything from a few kilograms up to 50 kg or more. When the cheeses are young they must be turned daily and washed with brine as part of the maturation process. This is a heavy, labour-intensive chore that must be carried out millions of times a day across cheese storage facilities.

The Benefit

The drives enable precise control of each action, with repeatable positional accuracy of ± 0.1 mm, and enable manufacturers to turn much larger quantities of cheese.

The Solution

LEU cheese handling machines have the capacity to handle up to 180 boards (540 cheeses) per hour, 23 hours a day, 7 days a week – a huge increase on the human equivalent.

The machines have to operate in a corrosive environment, with constant salt spray and the presence of ammonia. They are built to washdown standards, with IP55 protected cubicles and AC motors with sealed bearings & special protective coatings.

Each action required to handle a cheese board, rotate the cheese, scrub it with brine, then return it to its tray and back to its position on the racking is a servo axis controlled by a Control Techniques Unidrive SP drives. The drives are 4 to 7.5 kW – the size depends on the size and weight of the cheeses. There can be up to 11 further axes, depending on the machines, each of which is under the control of a 0.55 or 1.5 kW Commander SK AC drive. Each receives its speed/position set point from the main controlling CPU.

"We have considerable confidence in Control Techniques. We have received excellent support from the Zurich Drive Centre and their drives have potential that we have not yet fully exploited. We have moved 100% to Control Techniques drives due to their reliability and compact size."

Beat Blätter | Managing Director



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