Case Study

Power Transmission



Summary

Industry: Food - Dairy

Application: Milking system

Actual Saving: Significantly increased product

yield

Payback Period: Ongoing



Happy Cows, Better Yield: An Automated Milking Solution

ISSUE

A leading manufacturer of automated dairy equipment needed to design an automatic milking system for dairy cows. However, in order to achieve this task a number of factors needed to be considered.

These factors included:

- (1) The cows must feed as they are being milked
- (2) The cows must be comfortable and safe during the process
- (3) The udders and teats must be thoroughly washed
- (4) The milk needed to be tested to ensure it is bacteria free
- (5) The cow can exit the machine safely and be unable to return too soon

Facing such a big challenge, it was only natural to partner with ERIKS to find a solution.

SOLUTION

After careful deliberation ERIKS helped design a machine which ticked all of the boxes. It operates as follows:

First, the machine recognises the individual animal by sensing an electronic ear tag. If the cow can be milked, it dispenses the correct mix and amount of feed into the feeding bowl to which the cow will advance.

Automatic gates then close to keep the cow in place and secure. A laser scanner (or camera) scans the udders and teats so the automatic cleaning system can operate in the correct area. The milking couplers are then attached to the teats and milking commences.

After the milk is extracted a separate operation begins to test the milk for contamination, if clear it is pumped into a central tank.

Once the cow has finished feeding the couplers disengage, the gates open and the cow is able to walk free.

Cows can yield milk three to five times a day after sufficient time has passed, and if the cow tries to get into the machine too soon after a milking cycle, the gates will not open.

OTHER BENEFITS

- Superior expertise
- Increased product yields

FURTHER COMMENTS...

This method of milking is substantially increasing milk yield for the dairies already using the technology with the further potential of the solution being huge for dairy farms.

MORE INFORMATION

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