SKF grease injection lubrication system for continuous sterilizers

Benefits

- **Elimination of unplanned production stops** due to damage caused by improper lubrication
- **Increased chain service life** through precision lubrication
- **Improved sterilizer efficiency** by eliminating need to stop chain for lubrication
- **Reduced grease consumption** through precisely monitored and controlled lubrication
- **Reduced environmental impact** by reducing excess grease

Typical applications

- **Continuous sterilizers for cans and glass containers used in the human and pet food industry, including those for**
  - **vegetables**
  - **prepared meals**
  - **milk**
  - **canned meats**

Automatic system enhances service life and eliminates unplanned stops

Sterilizers operate in wet and high temperature environments. Continual lubrication is needed to prevent damage in sterilizer chain pins and rollers, with the number of lubrication points ranging between 3 000 and 8 000 per sterilizer.

Appropriate lubrication is essential to achieve line productivity and reduce the high cost of unplanned stoppages. Commonly, lubrication issues account for 60 percent of premature failures in sterilizer chain bearings. But, traditional methods of lubrication, including manual, oil drip, and many other installed systems, are not reliable in providing the accurate amount of lubrication on a consistent basis. At the same time, it is difficult to predict the health of the chain.

The grease injection lubrication system from SKF offers an outstanding solution. Lubricant is automatically injected under pressure directly into the chain pin while the chain is moving. The system has the capability to monitor and control lubrication cycles. SKF also offers the additional VISIOLUB instrumentation software designed specifically for lubrication systems. VISIOLUB facilitates predictive and active maintenance by providing data on the operation of the greasing system, and identifying defective chain links. This enables a preventive maintenance response before a chain break can occur. The system also contributes to a reduction in environmental impact by eliminating the use and disposal of excess grease.

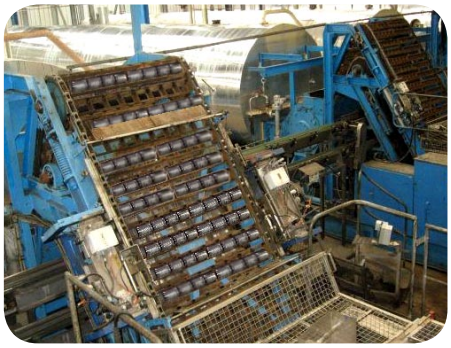
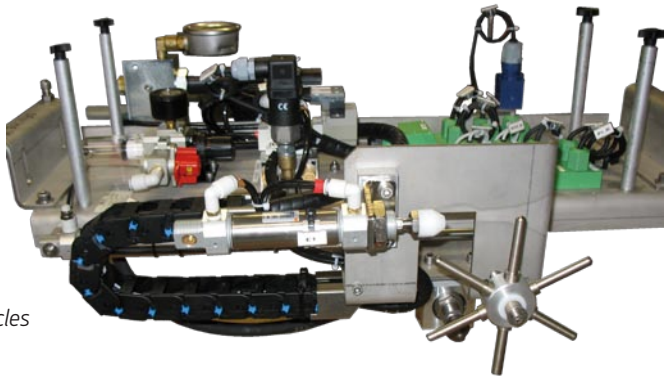


Photo courtesy of Perry St Thurien, Cecab Group

The SKF automatic grease injecting system improves sterilizer chain service life



The unit includes one injection head, one chain pick-up system with star wheel and a unit to control and monitor lubrication cycles

For more information about SKF products and solutions for the food and beverage industries, contact your SKF Authorized Distributor or local SKF representative.

Increase the return on your maintenance investment with SKF

The whole idea behind the SKF 360° Solution programme is to help you get more out of your plant machinery. Whether your goals include lowering maintenance costs, raising productivity, or improving safety, hygiene and sustainability, SKF can assist. Following is an example of the SKF 360° Solution programme at work in the food and beverage industries.

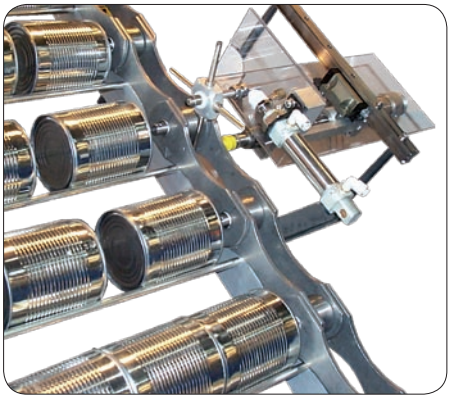
Vegetable canning operator reduces costs, enhances productivity with automatic lubrication system from SKF

An operator of a vegetable canning process was experiencing unplanned downtime in horizontal and continuous sterilizers. The operator knew that a lack of lubrication in the chain pins was leading to mechanical problems. However, production stops were not feasible during the peak season. When lubrication-related problems led to stoppages, the operator lost productivity, and incurred high costs for maintenance and chain replacement.

SKF recommended the installation of the grease injecting lubrication system, customized for each type of chain in the sterilizer lines. A maintenance agreement for the system and chain condition was also developed to provide ongoing monitoring and predictive maintenance.

As a result of installing the SKF system, the operator achieved savings in labour previously needed for manual lubrication, a reduction in unplanned downtime, a decrease in chain wear, and savings in costs for chain replacement and installation.

With this lubrication system, chains have an extended service life of 12-15 years, compared to 6-7 years with conventional systems.



The SKF system provided reliable operation, saving chain replacement and related maintenance costs

Summary*

Savings through reduced frequency of chain replacement/year . . . . . **€ 9 700**
(Extended service life, from 7 years to 14 years)

Savings in parts and labour/year . . . . . **€ 7 200**

Total savings . . . . . **€ 16 900**
(Excluding savings in elimination of unplanned downtime)

* All numbers are rounded off and based on customer estimates. Your particular cost savings may vary.

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