

Client's Case : Coast Mountain Dairy, the ice cream maker in Chilliwack, Canada



Their goals:

What they have achieved?

Improve problem associated with equipment maintenance

Information on vendor, cost of equipment & part numbers are being recorded for future reference.

Moving from panic to preventive maintenance

Work request was orally made to a supervisor and now being centralized onto server to reduce duplication.

Improve on gathering equipment details

Significant and measurable reports about all of the equipments at the fingertips

CMMS Without a Planner – A money saver for smaller plants

By David Griffiths for Pumps & Systems Magazine., Sept 2006

This ice cream maker proves that computerized maintenance management systems are now a viable option for midsized and small plants, too. The next ice cream you buy at Denny's or Costco, may have come from Coast Mountain Dairy, an ice cream making plant situated in Chilliwack, British Columbia. This small plant has grown in size to 12,000 sq. ft. of ice cream-making equipment, ranging from 40 different pumps (including stuffer pumps and feed pumps) to 120 different valves, to a large inventory of specialized parts. **However, with increases in demand and production came an increase in problems associated with maintenance of the company's equipment. It became apparent to management that it was imperative to purchase and implement a CMMS (computerized maintenance management system) to address these maintenance management problems and to streamline maintenance planning.**

For most of this creamery's history, the scheduling, maintenance and management of its equipment was done on an ad hoc basis. There was a dearth of credible information on maintenance activities and data on previous work orders was not retained. Operators knew little about the specific repair history of any particular machine. Invaluable component parts information such as the vendor, the costs of the equipment, and part numbers were unrecorded. If a work order to repair a stuffer pump (used to feed ice cream mix to the freezing barrels) was issued, no one knew what the status was of the work being requested. **"Downtime translated to at least 45 minutes per day due to equipment failure, malfunction, or maintenance," states Stan Howarth, facility manager for the plant. "Basically, it was panic maintenance instead of preventive maintenance."**

But Coast Mountain is neither large enough to employ an IT staff to develop its own customized CMMS software, nor does it have the capacity to employ a full-time planning engineer/technician planner. The plant only has three maintenance trades people including the supervisor. Howarth knew that, even though CMMS software had been around a long time, most of these programs failed to meet their users' objectives - especially with respect to small companies. Often, these software programs are designed so that only highly skilled, dedicated, technical staff can operate the system. Their costs are often prohibitive to smaller companies with limited budgets. Furthermore, lower - priced products often translate into a lower quality, with a poorly supported product. But more and more developers are overcoming these obstacles.

Companies specializing in CMMS now develop systems in which custom-like features allow a company to effectively and efficiently plan and execute tasks to ensure maximum uptime of its equipment. Many of these systems are priced competitively for small to mid-size companies and are comparatively easy to use – even for the technician that is uncomfortable working with computers. The management of this creamery was experienced with in-house customized programs. They chose an in-depth CMMS with capabilities that would fit their plant needs and budget. The Coast Mountain CMMS operates without the need for planners and both skilled and unskilled operators can input into it.

This software is competitively priced against competitors and is supported by experienced technical staff. The Main Module of this CMMS offers Coast Mountain a wide range of capabilities such as Asset Management, Preventive Maintenance, Work Orders, Spare Parts, Purchasing and Reports that assist in effectively managing their equipment. During the learning curve of installing and using this program, the back up from this CMMS was there to make the operation easy and complete. The installation of this system was simple. The database for the CMMS was installed onto the central server and users had either the Work Request or Main module installed on their PCs, which were then linked to the common database. Four PC's were available for input of data.

Previously, work requests were initiated when equipment failed or malfunctioned. A work request was orally made to a supervisor who, in turn, determined whether a work order should be made. With the new CMMS, the work request module now allows any user to enter from a desktop icon a work request, with only the work description being compulsory. After inputting the work request, the system then tracks any changes made to that work request so that a user can see whether it is cancelled (with reasons) or is promoted to a work order. Once the work request evolves into a work order, the ongoing status of that work order is tracked until it is closed. As with most small companies that plan a maintenance procedure, Coast Mountain concentrates on the PM tasks. The key here in using a CMMS is to input detailed records of each machine's repair history so that the effectiveness of the PM process is constantly revisited. Without complete maintenance detail, this process and the generation of KPIs and MTBF are meaningless. When the preventive maintenance sheets were first printed, the information was basic. The task of the mechanic was to not only to follow the procedure, but also to get as much information as possible about the equipment. This information was in turn added to the CMMS database. Now, one year later, all employees at the Coast plant have most of the information about all of the equipment at their fingertips.

The results in using the CMMS have been significant and measurable. Work requests are now made by non-maintenance staff who track progress without having to bother the maintenance supervisor. Preventive maintenance routines are set up for all the critical machines, and compliance is being recorded. Prior to working on a machine, maintenance technicians quickly scan previous work on that machine, including drilling down to work order details. All purchases are recorded using the purchasing module, thus facilitating detail searches for any supplier or part. **Downtime costs in the plant run approximately \$1500/ hour, so the reduction in downtime of 45 minutes per day in downtime translates into a cost savings of \$1200 per day.**

Howarth is now working on formalizing his spare parts inventory and checking out the work log feature that further simplifies the task of creating and updating work orders, while at the same time providing an on-screen daily logbook of all maintenance work done in the plant. Some may denigrate this use of a CMMS as a filing system, but **this is proof that a value-priced CMMS can be an invaluable tool for maintenance in smaller plants or facilities. Herein lies the present and the future of CMMS – competitively priced, user-friendly software that is specifically designed to assist small to mid-sized companies in effectively managing, operating and maintaining their critical equipment.** Better maintenance translates to the bottom line, in terms of better employee and machine utilization.