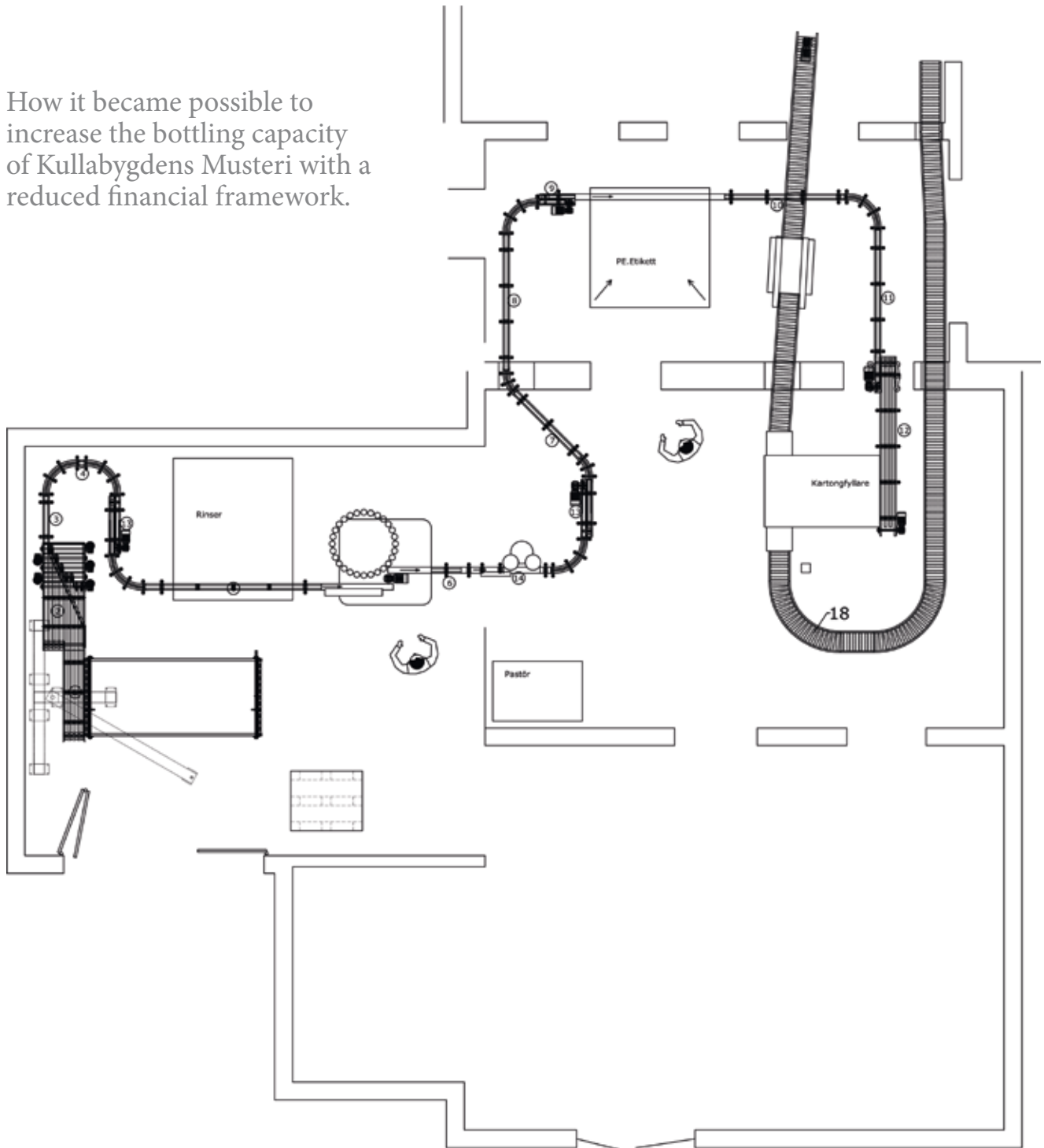


EIGHTY YEARS OF TRADITION OVERWHELMING THE GLOBAL FINANCIAL CRISIS

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How it became possible to increase the bottling capacity of Kullabygdens Musteri with a reduced financial framework.



Kullabygdens Musteri, located in Mjöhult close to Öresund, is a family-owned company with a tradition of more than 80 years of producing high quality must made from apples cultivated nearby. Both private persons and local cultivating companies deliver the famous apples from Skåne to Mjöhult, where fruit are treated carefully to become famous Kullamust products. Kullamust does not contain any additives – it is 100 per cent must and nothing else. The Kullamust products are certified by 'Svenskt Sigill' that guarantees the local origin of the apples and the quality of the must.

As the customer demand for Kullamust products increased continuously, it became necessary to enlarge the processing and the bottling capacities. The first step was to double the capacities for filtration and pressing in 2007 and 2008. In connection with the exchange of the pressing equipment, a cooperation between Kullabygdens Musteri and Leibfacher CBB Consulting was established.

The next step to be planned was the exchange of the bottling line for hot filling of glass bottles that was to be done in 2009. Leibfacher CBB Consulting was asked to work on a suitable concept, covering several items that were difficult to combine. The planning phase began in the end of 2008 and the new line finally started bottling in September 2009 – after an intense journey with periods of hope and despair regarding the possibilities of financing the investment.

PLANNING PHASE

The capacity goal was to enlarge the bottling capacity to 4,000 bottles per hour to be achieved using three operators. As the number of operators in the old line was five and the capacity was only half, the potential for fast amortisation was good. The old line was build for returnable bottles and contained a bottle washer. Apart from increasing capacity, even the general layout had to be changed by replacing the bottle washer with a rinser. As the filling application is hot filling at 85 degrees Celsius, a rinser in the new line needed to provide two functions with both inside rinsing and outside warming.

Further demands were defined as follows:

1. Half-automatic depalletising equipment for new bottles instead of manual handling
2. Integration of the existing crown corker from the old line into the new line
3. Labelling with adhesive labels, both front and back, instead of only one label per bottle
4. Automatic packing of bottles into wooden crates and cartons instead of manual handling
5. Integration of an automatic case sealer and of a screw capper
6. Possibilities for a later installation of a case former and a palletiser for crates and cartons
7. Construction of new heating equipment both for rinser water and product
8. Installation on a small area in defined parts of two existing buildings that had to be connected by an additional building

Early in the planning phase, it became obvious that the biggest challenge would not be technical, but financial. Already in February, 2009, there was a clear idea for a general budget, a possible layout and how to solve the technical demands. With regard to financing, the usual method to find a suitable way with the customer's bank did not work in times of the global financial crisis. As a consequence, parallel efforts became necessary: Looking for alternative ways for financing on the one hand and looking for how to reduce the budget on the other hand. Whilst the Kullamust management worked on several possibilities for the financing of a reduced SEK 2.5 million budget (excluding building costs), Leibfacher CBB Consulting evaluated the potential for the best possible line within these financial frameworks. The main suppliers had been chosen with Maseco AB and HS Maskin from Sweden and W. Hormes Ing. GmbH & Co. KG from Germany. In close cooperation with these companies, the technical parameters were defined as follows:

- Use of second-hand components for building up the crate and carton conveyor system by HS Maskin
- Use of new components for building up the bottle conveyor system by HS Maskin
- Use of second-hand machines apart from the temperature-regulated heating equipment for rinser water and product that had to be built up from new components by Maseco
- Overhauling of the existing Ortmann & Herbst crown corker from the old line at HS Maskin and integration in the new line →

- An additional screw capper, originally planned to be installed, was excluded, but the line layout should be prepared for a later installation
- The line should be equipped for two sizes of glass bottles, 33 cl and 63 cl; that even includes two different bottle lifting frames for the depalletiser equipment
- Special construction of the rinser by Hormes using the base of a second-hand Perrier rinser
- The crate and carton packer, build on the base of a 2-head Kettner packer by Hormes, should only be equipped with one lifting head that is sufficient for the initial line capacity
- Transparent labels on white glass bottles
- 'Best before' marking directly on the bottles below the bottle neck with an ink jet printer (used Videojet Excel equipment with guarantee; supplied by Maseco)
- Installation of the new line in the second half of August, 2009, and start-up in the beginning of September

After months of intense work whilst fearing more than one time that the financing might not succeed quickly enough in order to be able to guarantee the time of delivery, Kullabygdens Musteri could, finally, definitely order the line in the end of June 2009.

EXECUTING PHASE

As the bottling activities in the old line were finished in March, 2009, Kullabygdens Musteri started with the dismantling and with building activities. The new line requires a bigger area than the old line and several possibilities for locating had been discussed. The final decision was to use the area where the old line had been located, open the outside wall and connect the building with a neighbouring building.

The labeller and the case sealer was to be located in the new connecting part and the crate and carton transport was to start and end in the neighbouring building. The crate and carton packer was to be installed where the former bottle washer had been situated.

The former outside walls could not be opened more than using former window openings because of static reasons. With regard to the line layout, the challenge consisted of using the little area as effectively as possible and to guarantee a good overview for the operators in spite of walls all around.

In the middle of August, the building activities were finished and the line could be installed according to the time schedule. This was very important as the new campaign with processing the first apples from the new crop would start in the end of →



28 valve vacuum filler

August, and then the new line should be ready for bottling. At the same time, there was not much bottled must left in the store and there was a big need for starting bottling in the new line in order to be able to deliver to the customers.

As a consequence, everyone was happy when the first bottles left the Christian Berner vacuum filler in the beginning of September.

EXPERIENCES

Smaller companies, such as Kullabygdens Musteri, usually have no routine nor own personnel resources that enable to successfully run bigger projects without help from the outside. As a consequence, expert help from the outside is an important option. The choice of outside expert help is a key factor for both technological and financial success. The expert task is to make the project cheaper and better as well as to help to secure time and financial frames.

The planning phase is the most important one on the way to a successful project. Key factors in order to secure practical reality according to theoretical fiction are:

- Clear definition of who is responsible for what
- Clear definition of the borderlines between different suppliers
- Follow-up of time schedule at least once a week
- Follow-up of budget at least once a month
- Defined routines for the communication in the project group
- Customer interest in learning/defining new machines/routines

Entrepreneurs achieve a lot in case of close cooperation at the right time with the right people from the right companies. Because of Leibfacher CBB Consulting's network and experiences with filling lines containing used overhauled machines, a concept could be found that suited the needs of Kullabygdens Musteri. Their production manager, Anders Svensson, did a tremendous job in preparing the buildings before installation.

SUMMARY

As a consequence of a positive sales trend, Kullabygdens Musteri had an urgent need for higher bottling capacities in order to maintain their ability to deliver bottled must from autumn 2009.

In spite of the difficult situation with regard to financing, a clear definition for the layout and the technical specification was formulated.

In close cooperation with Leibfacher CBB Consulting and the supplier companies Hormes, HS Maskin and Maseco, the missing pieces for the bottling puzzle could be found.

The defined time schedule was kept alive and the project could be realised both within strongly limited time and financial frames.

The expectations of the new line with regard to lower production costs and greater effectiveness could be realised. This is a result of a good teamwork between all the involved companies. ▮



Hormes rinsar



Depalletiser equipment