

On the highway to success

The new 320t/24h flour mill of South Amman Mills is Jordan's most advanced facility of its kind. The smooth handling of the project and the start-up of the plant ahead of schedule are, among other things, the result of using a novel production principle for the first time.

For the first time ever, the Buhler specialists applied a new principle in implementing the flour mill project of South Amman Mills, in which all the processes are handled on the basis of a totally synchronized plan. "Our internal experiences with production control and monitoring based on this standardized process have been excellent," explains Hans Tschudin, head of the international installation department of the Grain Processing Division. "Now we have applied this principle for the first time also in the implementation phase of a customer project – that is, during installation and start-up of a plant. And the result is absolutely overwhelming: In close cooperation with the customer, we completed the mill project of South Amman Mills four weeks ahead of schedule. This enabled our customer to start production four weeks earlier, which translates into genuine added value for them."

Synchronized processes

The new principle – which is called "Autobahn" or "Highway" at Buhler – supports the chief installation supervisor and produces transparency throughout the installation phase. Hans Tschudin: "The procedure is simple. Weekly meetings are held with the customer at their local site. On the basis of the continuously updated lists and charts, the headway that the project is making is discussed. Problems can be identified and any required corrective action can be discussed and immediately taken. This procedure gives the customer full transparency and makes them a true partner of ours."

The basis for the weekly stocktaking meetings is provided by standardized lists and charts related to materials, supplies, personnel, and other items, in addition to organization charts and schedules. "The crucial point is to ensure that the lists and charts are always meticulously updated," says Hans Tschudin. What is most impressive for customers is arguably to see the so-called "progress chart". It shows as a result of all the individual lists and charts the progress that the project is actually making in comparison to the expected progress. The result of the individual meetings is carefully documented. This allows detailed debriefing once a customer project has been completed. Hans Tschudin: "This enables us to identify any existing potential for improvement."

New flour mill constructed in Amman

As a pilot project for applying the new "Customer Highway" approach, the Buhler Grain Milling Business Unit chose the construction of the new Gulf

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The new 320-ton flour mill of South Amman Mills in Amman.

Industrial Development flour mill in the Jordanian capital of Amman. "We selected this project because the expansion of the South Amman Mills facility is a mid-size grain mill based on very high engineering standards for an Arabic country. Moreover, the customer was responsible for supplying the building and the infrastructure and for providing the local installation crews. Installation of the plant with local personnel was carried out in a highly professional manner under the supervision of our chief installation supervisor Nik von Rötze. This constellation along with our customer's dedicated commitment supplied the ideal basis for proceeding according to the new principle."

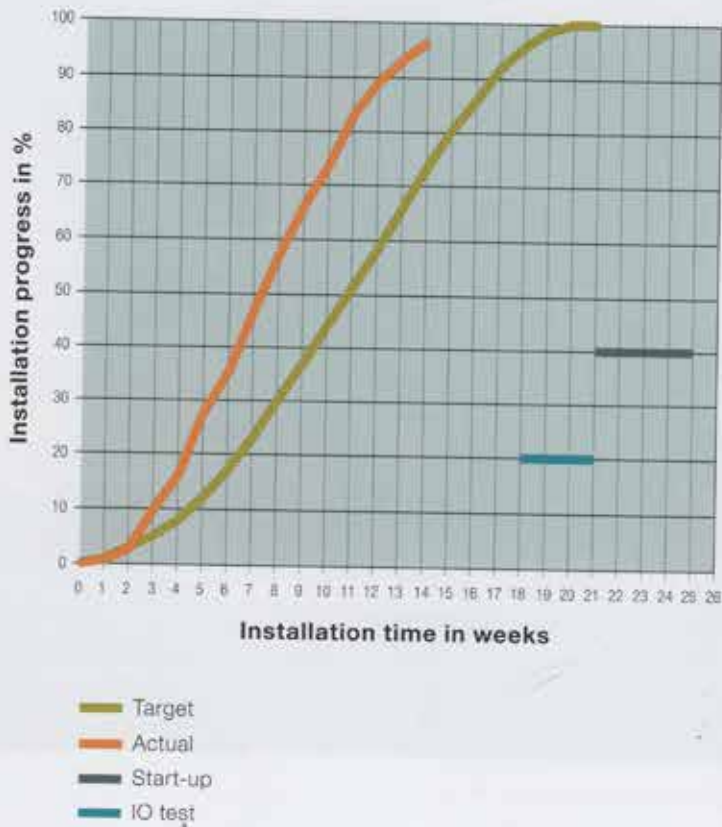
Fully automatic flour mill

"The contract for the new 320 t/24h mill for hard and semi-hard wheat was signed on August 31, 2007," explains Reto Ulli, who was in charge as team manager in the Grain Milling Business Unit for the South Amman Mills project. "Thanks to the excellent preparatory work done by the customer and continuous project checking, we exceeded our target. The new mill was started up in mid-June 2009 – four weeks ahead of schedule."

The new, fully automatic, WinCos-controlled facility of South Amman Mills consists of four sections. In the cleaning section with a capacity of 15 metric tons per hour, the wheat is predampened, weighed, and cleaned to highly sanitary standards by a separator, destoner, indented cylinder, and scourer. Before intermediate binning, the moisture of the wheat is measured and the wheat is subjected to a second dampening stage to obtain the moisture content of 16.5% required for optimal grinding.

The grain is ground in the next process stage on the roller floor by fifteen roller mills (thirteen four-roller mills and two eight-roller mills). The stock then passes through two sifters and four purifiers. The result of the fully automatic grinding process is flours of very high quality.

Project progress South Amman Mills, Jordan



Autobahn

At Buhler, the German term "Autobahn" – which means "Highway" – refers to the continuous monitoring of a project and the ongoing adjustment to changes or unforeseen challenges. At regular meetings, the current status of a project is discussed on the basis of drawings and diagrams. If any deviations from the target state are identified, corrective action is immediately discussed and taken. The "Autobahn" principle has proven its worth in the everyday production life of the Buhler business units. Initially only practiced in-house, individual business units have now started applying this simple yet effective principle as "Customer Highway" also at local customer sites during the implementation phase of a project.

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The roller floor boasts a total of thirteen four-roller mills (MDDM) and two eight-roller mills (MDDO).

Bins for storing finished products

Before the finished flours are held in intermediate storage in the six finished product bins with a total capacity of 600 metric tons, they are resifted for safety. The product is bagged for delivery to customers in the fourth plant section, which is equipped with four state-of-the-art bagging lines for filling 50-kilogram bags. Before bagging, the flours can if required be homogenized, which guarantees a consistently high quality of the flours supplied. A bulk load-out system for loading the flours into tankers was subsequently added to the outloading section.

The operators of the new plant were trained on site by the Buhler specialists. Chief installation



The new South Amman Mills plant operates four purifiers of type MQRF.

supervisor Nik von Rotz: "Training of the operator teams was the crowning climax of this very nice project. By proceeding on the basis of the Highway principle, everyone involved was at all times informed about the status of the project. The close collaboration with the customer was a prerequisite for successfully completing such a large-scale project within such a short time without accidents and without encountering any major problems, sometimes under harsh climatic conditions."

New market segment entered

As is common in some Arabic countries, the wheat market is government-regulated also in Jordan. To date, the wheat used to be supplied

by the government to processors at a fixed price, with the government then again acquiring the finished flour at a fixed price. But for some time now, Jordanian mills have been allowed to purchase the wheat on the free market for up to 35 percent of their production and to also sell their flours there again.

South Amman Mills plays an important role in the Jordanian flour market. Moreover, it exports part of its output to Iraq. This new and currently most advanced flour mill in Jordan now enables South Amman Mills to act as a player in the upper segment of the new free market by providing high-quality products and also catering to special customer requirements.

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