

Au2mate A/S Supplier to the Dairy Industry worldwide

Automation and Industrial IT

Au2mate A/S develop and supply automation solutions for the dairy and process industry worldwide. Our expertise covers every single part of the dairy process from raw material reception to packaging including high value-added processes, OEE and MES solutions.



By Klaus Dam,
Managing Director,
Au2mate A/S

Technology transfer to Russia

In the autumn 2013, Au2mate was engaged in an efficient, rapid and smooth technology transfer to Molvest at the Kalachevsky Cheese Dairy in Russia.

Background: Today, Arla Foods is producing Havarti cheeses in cooperation with Molvest in Russia at a plant located approx. 1000 km south of Moscow. The cheese vats were transferred from Arla Foods Krusaa. The project involved significant technology transfer, and Au2mate delivered the control system including training and start-up.

In order to ensure safe technology transfer and a smooth start-up in Russia, the Russian personnel received training by Au2mate engineers in Denmark. Two directors, three technical employees and five operators went to Denmark in order to participate in the FAT test and to receive training in operating the control system. Likewise two engineers from Au2mate went to Molvest to participate in function-tests, respectively, with water and then with milk. Furthermore, technical personnel were trained in fault-finding.

Flexible control system

In order to facilitate effective, rapid and smooth technology transfer and to ease the installation and start up in Russia, core parts of the plant were built, pre-mounted, and FAT tested as units before shipment to the site.

The control system is based on unit control panels of which each includes PLC, I/O cards, HMI touch screen, and MCC and frequency converters. This offers a flexible and uniform solution based on local operation of each process unit. Communication between control panels takes place via Ethernet.

The main control system is based on a Siemens S7-400 CPU incorporated in a stainless steel cabinet together with S7-400 interface cards and MCC equipment.

Local control panels are placed at each of the five cheese vats. Further, an operator panel in stainless steel with Siemens 10" touch screen is installed, from which the central operation of the cheese vats takes place.

Data-collection and supervision

For central supervision, data collection and reporting, we further supplied an extra client including a MIS operator station with Wonderware In-touch / IAS software.

The dairy personnel can use the PC-stations for comprehensive supervision of the process, showing overall status for each process segment/unit. Further, it is possible to modify/change the cheese recipes from the PC-stations. All plant operation and manual operation of plant components take place at the local operator panels. In addition, data collection and reporting includes milk intake, pasteurization, cheese vats and CIP.

Technical data

In total 28 panels/units are connected to the control system. Approx. 2400 I/O are controlled. The Au2mate supply scope includes:

Au2mate A/S: Международный поставщик промышленных IT технологий и систем автоматизации для молочной промышленности

Эффективный, быстрый и плавный трансфер технологии на «Калачевском сыродельном заводе» холдинга «Молвест», Россия, осень 2013. Сегодня в России на заводе, расположенном примерно в 1000 км к югу от Москвы, датско-шведская компания «Arla Foods» и ЗАО «Молвест» совместно выпускают сыры Havarti. Сыроизготовители были привезены с завода Arla Foods Krusaa. Проект предполагал проведение масштабных работ по трансферу технологии – компания Au2mate поставила систему управления, включая тренинг персонала и запуск этой системы в России. Специализацией компании Au2mate является автоматизация стандартных процессов молочных производств: от приемки сырья до упаковки, включая сложные комплексные решения, такие как системы оценки общей эффективности оборудования и комплексные системы управления производством.



The cheese vats, relocated to Kalachevsky.

- 28 panels including 14 PLC's, 18 operator panels and 27 frequency converters.
- 2 MIS stations based on Wonderware Intouch / IAS with 23" monitor.
- Wonderware system platform.
- Intouch/IAS application for supervision of plant and modification of recipes.
- Reporting application for milk intake, pasteurization cheese vats and CIP.
- 1 PC laser printer.

Four quick facts about Au2mate A/S

- 1: Founded in 2001 by Carsten G. Jensen and Klaus Dam, both with years of experience in dairy automation.
- 2: 62 employees at offices in Silkeborg, Dubai and in the UK and holds more than 500 man years of experience in dairy automation.
- 3: Project-oriented, has delivered more than 1200 projects, PLC, SCADA, MIS / MES and ERP integration to dairies throughout the world.
- 4: Delivers solutions based on open standard platforms and internationally recognized methods for software development and project management. ■



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Today Au2mate has offices in Denmark, UK and Dubai and holds more than 500 man years of experience in dairy automation.

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