

# CASE STUDY ALMI

## Almi GmbH & Co KG: 30,000 sqm seasoning production facility Challenge for the process control system



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*The innovative plant design of the production facility and company HQ resulted in a tripling of production at Almi.*

*All the process engineering is implemented with high-performance networked SIMATIC S7 controllers, with their data for archiving, optimisation and logging being reported directly to the ESA-weight process control system.*

### REQUIREMENTS:

- Parallel order processing at:
  - 80 metering stations
  - 40 automatic weighing machines
  - 30 manual metering stations
  - 15 mixing stations
  - 5 grinding workstations
- Simple operation
- Maximum operational reliability
- Connection to ERP system
- Traceability
- Coordination of container transport

### BEST PRACTICE:

The new production system is considered as “best practice” not only in terms of performance, but also with regard to flexibility. Customer-specific orders can be produced and delivered at very short notice; changes in recipe or additional orders can be implemented in production in next to no time.

The ESAweight production control system currently installed on 7 servers and across 80 metering stations represents a sound basis for this.

### Top priority in processing: preserving aroma

For this reason, Almi employs an extremely gentle cold-grinding method. Raw materials are cooled by means of nitrogen during grinding, in order to process them in an undamaged condition. All the necessary data for these important process steps are freely definable in a so-called „grinding recipe“. The steps are worked though automatically by powerful PLC controllers. For the purpose of comprehensive, convenient operation, all the grinding workstations are equipped with an ATEX 22 touchscreen and the appropriate ESAmill operating module.

### Key factor in the company: container logistics for 70 containers simultaneously

In the whole plant, up to 70 containers are en-route on roller conveyors at any one time. Each of these is assigned to an order and accompanies this from one production workstation to the next. Depending on the order, individual containers automatically collect the pre-metered individual components from a total of 40 raw material silos. A fully automatic crane system is used to position the respective container above the mixing lines, where they are docked in place and emptied cleanly and completely by a container discharging system. All the logistics for the containers on their way through the production facility are handled by the ESAweight control system, with manipulations being worked through extremely precisely and absolutely faultlessly.



### WE FOCUS ON SATISFIED CUSTOMERS:

*„The container system enables flexible production with the greatest possible cost effectiveness, which is decisive in the case of so many different customer-specific recipes and orders. In plants with permanently installed receptacles, the entire line must be cleaned after every order. This results in downtime. Conversely, in our solution approach, the plant remains permanently operational thanks to the high number of available containers, which considerably increases capacity utilisation.“* – Technical Department Manager: Robert Leeb