

RISO VIGNOLA - Italy

Continuous mixing and bagging in rice mill

Vignola is the source of fine Italian rice, recognized and appreciated on international markets.

With sophisticated technologies and highly flexible production methods, Vignola is a model rice mill.

Customer need

RISO VIGNOLA SpA needed a system to control the following processes:

- Operate a continuous mixing of 3 products with flow rate regulation.
- Product transfer to a bagging machine and bags filling control by weight.
- Calculation of the produced quantities



Continuous mixing solution

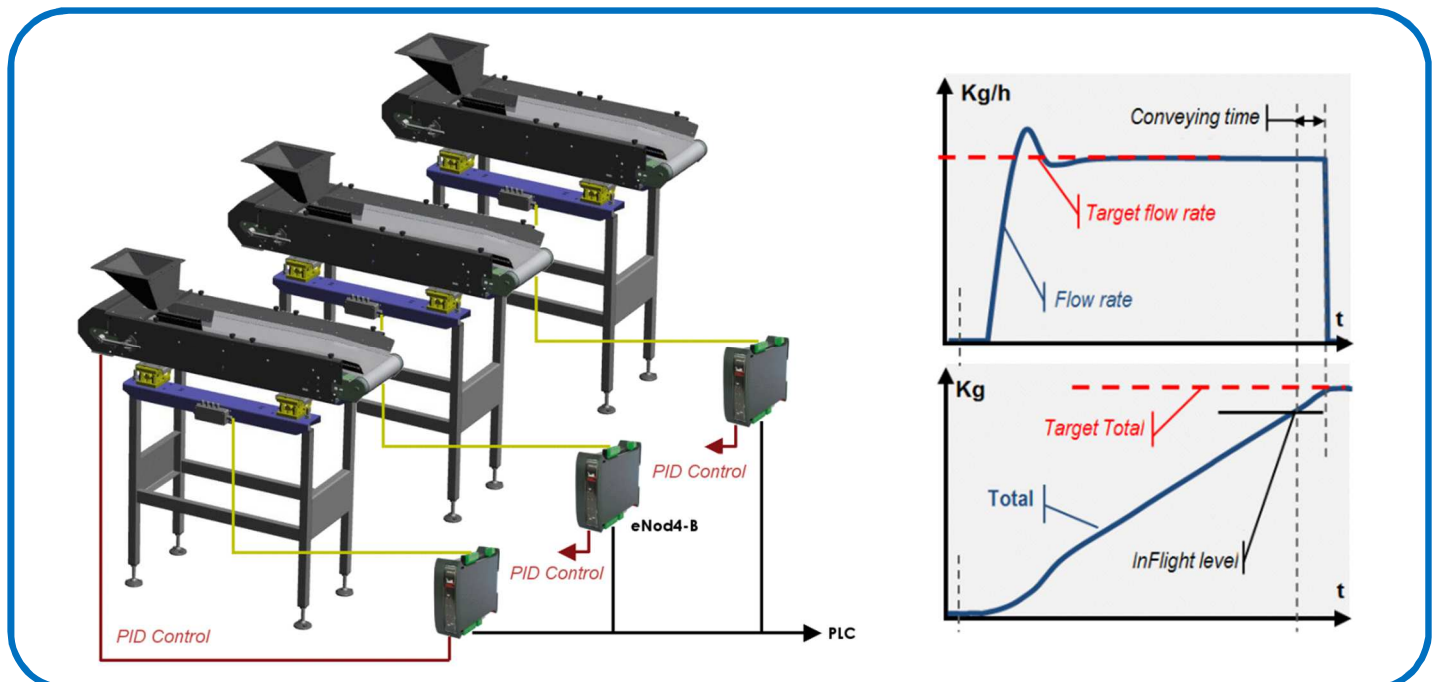
SCAIME provided a solution in partnership with its Italian integrator NONIS Srl. In this solution, the PLC takes care of general system controlling. With the parameters coming from the PLC, 3 eNod4-B takes in charge belt feeders control with flow rate calculation, product totalization and flow rate regulation. For belt feeders, we've proposed high accuracy F60X load cells which are able to achieve the customer accuracy requirements and can be very easily installed with STABIFLEX mounting kits.

SCAIME products:

- 12 load cells F60X 20kg with STABIFLEX mounting kits
- 3 Belt feeder controller eNod4-B on Profibus-DP

Automation products:

- 1 PLC
- 3 Conveyor belt



Customer Benefits

- Possibility of mixing different products in a continuous way and in real time with setting of the total required amount.
- Possibility to adjust the flow rate and to maintain constant the flow of products with the function of continuous dosing by weighing on a conveyor belt and adjustment of the metering valve.

Bagging solution

Vignola had to design a high speed automatic system to fill bags of mixed product with capacities varying from 3 kg to 15 kg. The product, stored in a hopper, fill a second small hopper to insure high accuracy dosing. At the end of the filling, each batch is then unloaded into the bag for sealing.

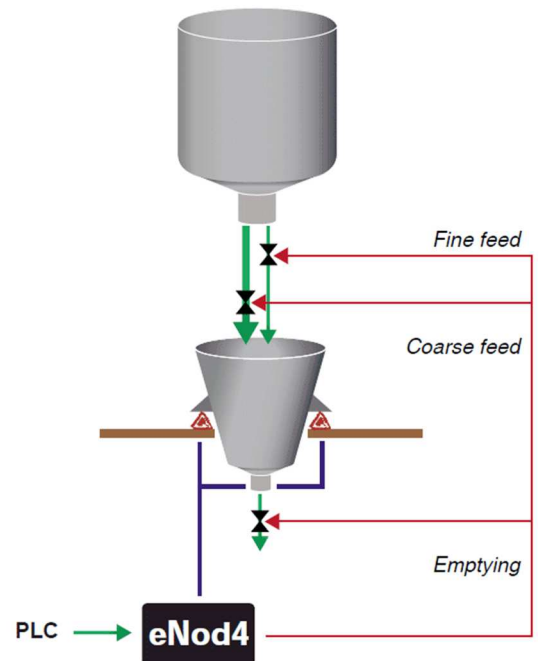
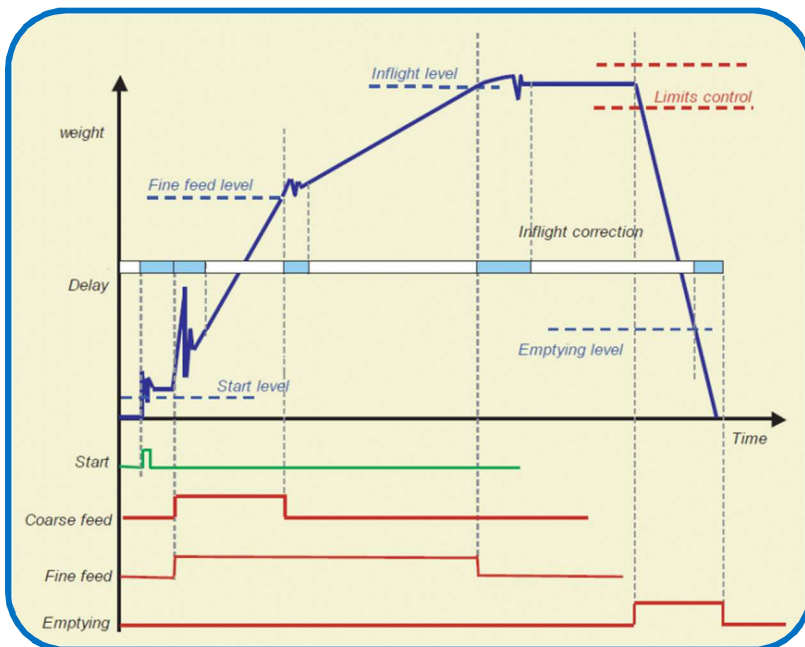
Bagging station

- 3 load cells F60X 20kg with STABIFLEX mounting kits
- 1 junction box ALCJB-A4
- 1 eNod4-D dosing controller connected to the PLC

To equip the bagging station, we've proposed F60X load cells in 20kg capacity. These load cells are made of stainless steel and are hermetically sealed to fit with hash chemical environment. The load cells are connected to a high accuracy eNod4-D dosing controller which takes care of weighing measurements and dosing batch control by filling.



F60X load cells – STABIFLEX mounting kits



Customer Benefits

- High weighing accuracy for precise bag filling
- Easy to implement and optimized architecture for best performances: devices being dedicated to tasks for which it is perfectly fitted.
- Thanks to dosing tasks controlled by eNod4-D controller, the system reaches very high speed and accuracy.