

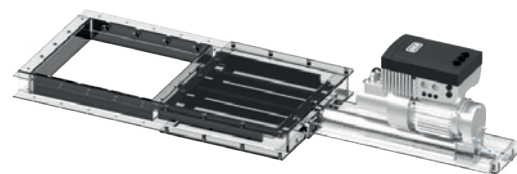
# RACO electric actuators

FOOD INDUSTRY  
DOSING VALVE



## RACO electric actuators for the actuation of dosing valves in food industry

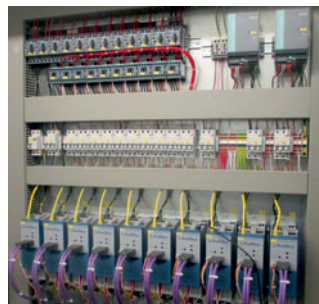
In food industry RACO electric actuators are used for precise motion control, both for valves (swing valve boxes) and chutes, as well as for dosing valves, where travelling to any intermediate positions is required.



RACO's electric actuators offer a wide range of control devices such as, positioning sensors, electronic limit switches, trust overload protection, to name just a few. RACO's sensor options range from simple limit switches with analog signal output to multi-turn absolute encoders with field bus standards.

Thus the electric actuators can be connected easily with the overall control and/or can be integrated as a system solution into the customer-side application i.e. autonomous control and monitoring including visualisation.

RACO electric actuators have been used as a reliable solution for many decades by our customers in the food industry.



## About the project:

In the Nordstemmen plant of the company Nordzucker, as well as in other sugar plants, dosing valves with RACO electric actuators have been used for decades. The material flow is controlled by dosing valves in order to obtain a defined sugar mixture. The exact position of the individual valve, and thus the feed rate, is set by a control loop.

# RACO electric actuators

FOOD INDUSTRY  
DOSING VALVE

RACO

In 2016 Nordzucker started upgrading their dosing valves. Dozens of actuators have been replaced by RACO's latest state-of-the-art electric actuators. Enhanced by the RACOMATIC® all electric actuators were implemented into the higher-level control including Profibus connection. All electronic components have been supplied by RACO, mounted in cabinets in order to avoid sugar dust contamination.

For this application RACO supplied Compact Type actuators K6C4-105 equipped with the RACOMATIC® in configuration "E" (fieldbus control activation). The speed can easily be adjusted in a range of 6 - 60 mm/s via fieldbus without change in force. The integrated multi-turn absolute encoder of the RACO electric actuator is protected against external influences by housing and guarantees the exact positioning as specified.

Embedded in higher-level control the RACOMATIC® controls the exact positioning of the actuators and thus coordinates the feed rate of the sugar. The featured overload protection automatically switches off the motor in order to avoid any damage to the valve or actuator.

## The following aspects should be considered for this project:

- Exact positioning of the dosing valves within a range of one tenth of a millimetre via RACOMATIC®. Realised with a RACO precision ball screw drive inside the electric actuator
- RACOMATIC® for controlling the operating parameters of the electric actuator (acceleration, speed, force, position)
- Thrust limiting and automatic shutdown in cases of overload
- Log function for relevant operational parameters, error report, runtime counter
- Simple control-related integration into the higher-level control via Profibus



**Would you like to find out more about our products? We would be glad to advise you!**

### Your personal contact:

Sales engineer Svend Jörgensen

Tel.: +49 2336 4009-48

E-Mail: joergensen@raco.de

### RACO-ELEKTRO-MASCHINEN GmbH

raco@raco.de

Tel.: +49 2336 4009-0

Fax: +49 2336 400910

Zertifiziert nach DIN EN ISO 9001

[www.raco.de](http://www.raco.de)

