



### THE PROBLEM

A cracker manufacturer contacted SNP's nozzle manufacturer and supplier BETE to help troubleshoot issues with the spray system on its flatbread conveyor.

The company was spraying speciality gourmet flatbreads with a cornstarch solution which enabled sesame seeds to stick to them. The out-of-date existing spray system caused inconsistencies in the products due to uneven spraying and would often jam, requiring maintenance and downtime and adding to overall costs. The company wished to improve their product quality and production uptime with a new automated spray system capable of consistently spraying the flatbreads.

At times, the assembly line would have up to five rows wide of product — at others, nine rows so a spray solution which could deal with varying production runs was essential.

### THE CHALLENGE

- ✓ Improve product consistency
- ✓ Allow for spraying of variable production runs
- ✓ Reduce costly overspraying of cornstarch solution
- ✓ Boost production and reduce maintenance downtime
- ✓ Reduce cleaning time caused by overspray



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## THE SOLUTION

BETE engineers demonstrated the FlexFlow™ Precision Spray Control System. The FlexFlow™ system ensures precision control and flexible automation for BETE's Electric HydroPulse® spray nozzles.

The customer was impressed by the range of cycle frequencies, duty cycles and pressures varying up to 2.7 bar and with the FlexFlow's ability to allow for multiple operational zones.

Advantages of the FlexFlow System with electric nozzles HydroPulse® include:

- ✔ Precision spray directly on the target
- ✔ Reduced waste and minimal overspray maintains a clean, safe environment
- ✔ Uniform and repeatable coverage improves product quality
- ✔ Interchangeable nozzle tips provide a wide range of spray patterns to match process requirements
- ✔ Flow control with Pulse Width Modulation ensures constant pressure and spray performance

## RESULTS

The customer's process now features consistent, uniform spray coverage onto the crackers. Seeds stick firmly, and there is a significant reduction in overspray, wasted ingredients, and downtime resulting in the following cost savings:

- ✔ 15% savings in sesame seeds
- ✔ Increased production time with improved quality of the crackers
- ✔ A massive reduction of 12 hours per month downtime compared with the previous year
- ✔ Daily cleaning now takes half as long - one hour compared to two

The company was pleased with the return on investment and the plant manager is now considering upgrading other production lines with BETE's complete spray system solutions.

## THE PRODUCT

### FlexFlow™ Precision Spray Control System



FlexFlow™ Control panel



The Electric HydroPulse™ (hygienic version)



Pulse Width Moderation