



THE
SPRAY NOZZLE
PEOPLE

Case Study

Food Processing

DOUGH MOISTENING SOLUTION

Spray technology forms a vital part of many food manufacturing processes. The three most common applications for spray nozzles in the food industry are coating, cleaning and tank cleaning (cleaning in place or CIP). Installing the right nozzle system can deliver huge gains in productivity and, of course, product quality.

► THE PROBLEM

A manufacturer of automated bakery and pastry machines contacted SNP for assistance in improving the performance of their dough preparation equipment. They were finding that the dough was becoming too dry as it went through a number of different processes from cutting to baking and that various methods of moistening it had left it too wet overall or had not provided consistent moisture levels.

► THE SOLUTION

SNP engineers needed to find the best method of maintaining the moisture level of the dough throughout the various processes. Since the dough sheet was moving under the nozzles, a flat fan spray pattern was recommended as this would provide the most even and complete coverage. The finest droplet size was also specified as this would enhance droplet adherence and evenness of the coating as well. An air atomising nozzle with internal mix air and fluid cap was thus recommended. It also included manual shut-off hardware to allow operators to conveniently turn the water off directly at the nozzle. Three nozzles were positioned on each machine (see right) and were supplied in stainless steel which is specified for most food processing applications.



01273 400092

www.spray-nozzle.co.uk

► CHALLENGES

- A number of different processes
- Even coating needed
- Food processing environment requiring stainless steel option

► THE PRODUCT

- 1/8" XAPF 050B nozzle
- flowing at 3.8-11.4 L/h and operating at 60 psi water (4.14 bar)
- 316 Stainless steel

