

Custom Solutions Bulletin

Industry: Wastewater Treatment

Application: Distribution onto Filter Media

Product Descriptions: NC Series Full Cone Nozzles

Situation: A BETE customer was in the process of making some improvements on a odor control bio trickling filter in a wastewater treatment plant. They had two headers that required 12 nozzles per header and needed complete coverage of the cross flow trickling media. It was important to the customer to have as coarse of a spray as possible. The desired total flow

Technical Questions?

Please contact:

Applications Engineering

(appeng@bete.com)

413-772-0846

App#081077

was 400 - 500 gpm (1500 - 1900 l/min). The requested material was PVC. The pressure was to be specified by BETE Applications Engineers. The clearance from the header feeding the nozzles to the cross flow trickling media was only about 10 inches.

BETE's solution: In this particular case, BETE standard catalog nozzles were suited to fit this application. The NC series was selected because of its uniform pattern and coarse droplet size since the NC gives the largest droplet size of any direct pressure full cone nozzle. In addition, a pressure of 7.0 PSI (4.8 bar) was selected because lower pressures result in a coarser droplet size. The 120° wide-angle version was selected to address the limited height the nozzles had to form a pattern. The 1-1/2NCM1520W was the nozzle that met all of the customer's criteria.

