

Industry: Petroleum

Application: Wash water into gas stream

Product Descriptions: Special Right Angle MaxiPass (MP)

Situation: BETE received a request from a petrochemical company for a nozzle to spray wash water into a gas stream. The customer required a right angle nozzle with a 30° full cone pattern. The customer's flow requirement was given as 27.5 gpm (104 l/min) at 29 psi (2 bar). The nozzle was to be fixed on a 1½" (38.1 mm) pipe that would then be inserted through a 4" (100 mm) pipe to spray tangentially into a 6" (152.4 mm) pipe. Therefore the nozzle's dimensions would be determined by the inside diameter of a 4" and 6" pipe. Because BETE did not offer a stock nozzle with the required dimensions and flow capacity, Applications and Design engineers designed a custom solution.

BETE's solution: BETE engineers combined the MP internal vane structure and nose geometry with a standard 90° elbow. The result was a compact right angle nozzle that that would fit through a 4" Schedule 80 pipe and spray a 30° full cone pattern into a 6" Schedule 80 pipe. The 316 Stainless Steel custom nozzle flowed according to the customer's specifications and met their dimensional criteria.

Technical Questions?

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