

## **Custom Solutions Bulletin**

**Industry:** Chemical Processing

**Application:** SO<sub>2</sub> Scrubbing

**Product Description:** Special High Flow NCK

**Situation:** A BETE customer from a large international chemical company called Applications Engineering with the requirement for nozzles to go into a scrubber they were preparing to build. The scrubber service would be removing Sulfur Dioxide from a gas by reaction with Sodium Hydroxide that would be injected by the nozzles. Sodium Sulfite and water

## Technical Questions?

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would result. The nozzle would be required to flow 1150 gpm (4350 L/min) at 30 psi (2.1 bar) and unleash substantial energy to facilitate mixing.

**BETE's solution:** BETE Applications Engineering coordinated efforts with both the chemical company and the engineering firm that was contracted to build the scrubber. The nozzle specified for the job was a special high flowing NCK in Teflon with a 15 degree spray angle. The narrow spray angle was chosen to concentrate the force.



