

**Industry:** Pollution Control

**Application:** Venturi Scrubbing

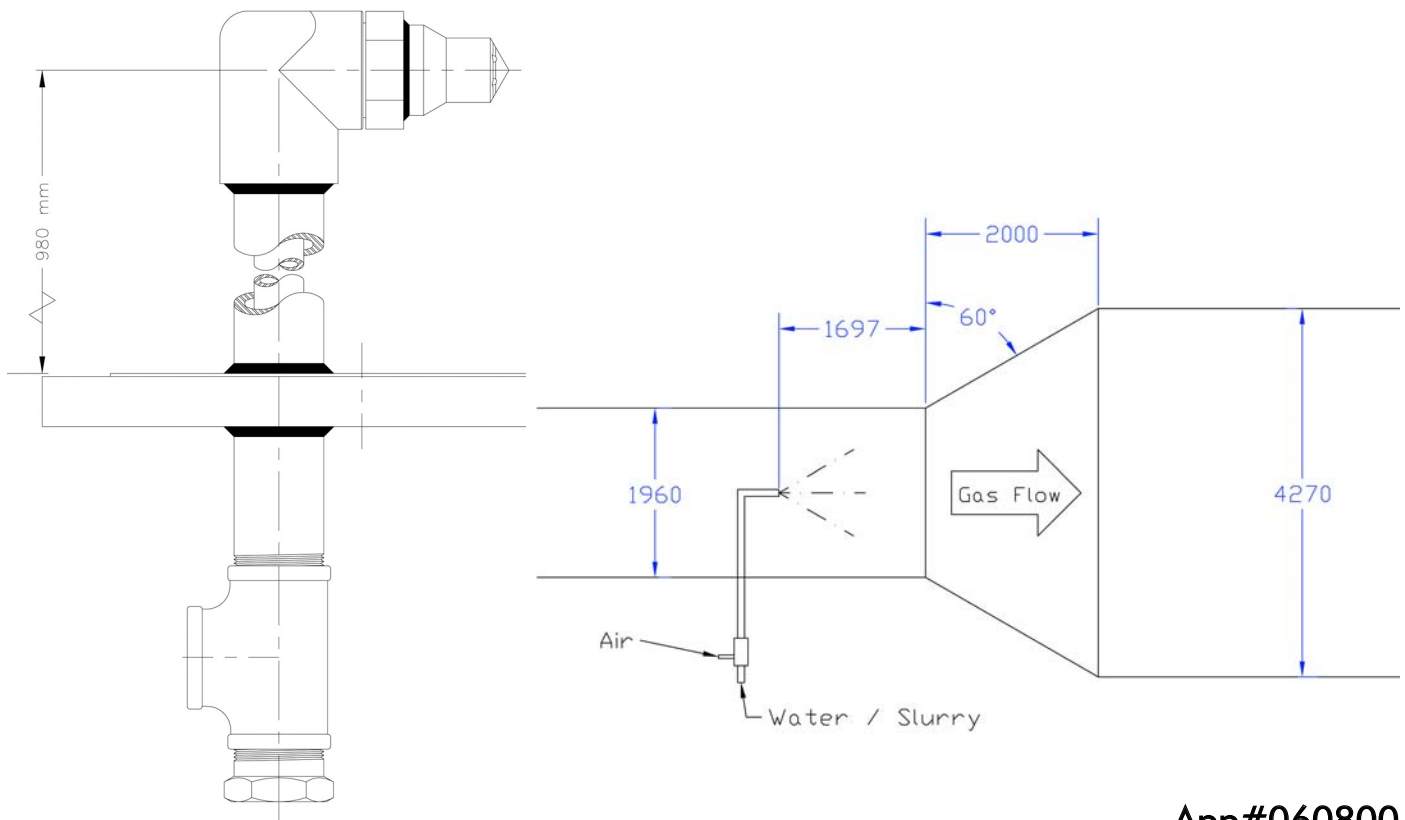
**Product Description:** Special 3" SpiralAir™ Lance

**Situation:** A BETE customer contacted BETE about doubling the capacity of the SpiralAir 2303 nozzle. The customer's scrubber requires approximately 40 gpm (151 L/min) of a 5% weight solids slurry with very high atomization using 200 SCFM (125 Nm<sup>3</sup>/hr) of air. The venturi expands at a 60° angle with a gas flow of 120 feet/second (37 meters/second). The customer expressed the desire to use only one nozzle in the scrubber and was against the use of two SpiralAir 2303 nozzles.

**BETE's solution:** BETE Applications Engineers determined that a 3" SpiralAir design would meet the customer's flow specifications. The 3" nozzle provides adequate capacity to meet the 40 gpm (151 L/min) required flow while providing ample area to provide 200 SCFM (125 Nm<sup>3</sup>/hr) or more of atomizing air to the system. A spray angle of 60°-65° was chosen to provide maximum coverage in conjunction with placing the nozzle just before the expansion section of the venturi scrubber. The 3" SpiralAir was designed with the F-10 lance assembly in mind for convenient installation by the customer.

### Technical Questions?

Please contact:  
Applications Engineering  
(appeng@bete.com)  
413-772-0846  
App#060800



App#060800