

Custom Solutions Bulletin

Industry: Waste Management

Application: Material Injection

Product Description: Special Quick-disconnect Lance

Situation: A customer had viewed Custom Solutions Bulletin #10 which depicted a removable SA lance with cam lock quick-disconnect process fittings and a wedge lock quick-disconnect mounting flange. The customer liked the idea of the quick-disconnect mounting flange and inquired about manufacturing lances for them with the same arrangement, except with a single fluid nozzle rather than an air atomizing nozzle.

Technical Questions?

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BETE's solution: BETE Application Engineers had worked with this customer on previous projects and knew that the design conditions were much less stringent than those for which the other lance was designed. This project was for saturating an air stream with water at essentially ambient pressure and temperature. Capitalizing on this, an alternate arrangement was discussed in which standard quick-disconnect cam lock fittings could be used on the mounting flange as well as the process connection. This incorporation of standard, off-the-shelf components considerably reduced the price of the lance over the wedge-lock design. The use of tapped holes in the lance rather than welded nozzles provided versatility in that a single lance design can now be purchased and used on many similar projects with different size nozzles being used as needed.

