

**Industry:** Steel

**Application:** Localized Weld Cooling

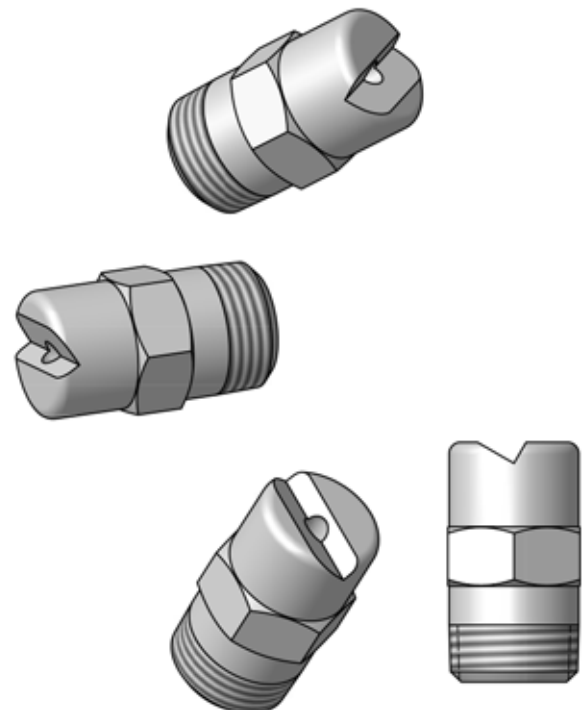
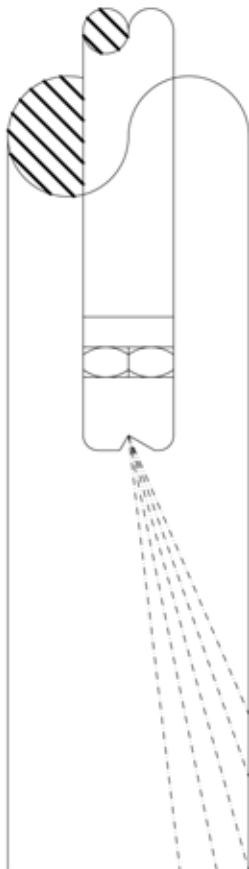
**Product Description:** Special Skew Angle NF

**Situation:** A BETE customer called about localized cooling in a hazardous welding operation. A cap is welded onto a cylindrical shell by a stationary welding apparatus. To complete the weld, the shell and cap are rotated. Due to hazardous conditions the heat needed to be localized around the weld point. The customer wanted to put a stationary fan nozzle into the cylinder such that the spray is focused at the external weld point. The available pressure for the cooling spray was 60 PSI (4.1 bar) and the desired capacity was stated as 5 gpm (19 L/min).

### Technical Questions?

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**BETE's solution:** In order to occupy as little of the 1.75" clearance available, BETE Applications Engineers decided on a skew angle NF nozzle. Based on the current system, the 15° skew angle was specified by the customer. The fan pattern of the skew angle will round itself out to better fit the cylinder's curvature. The use of a small 15° spray angle will concentrate the spray on the weld point and the immediate area. The nozzle capacity is sufficient enough to remove the excess heat and eliminate the combustion hazard.



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