Billetcooler Oval Spray

BilletCooler air mist nozzles

With this type of nozzle, it is possible to utilize air mist cooling in billet and bloom casters very effectively. The compact block design allows mounting either on horizontal spray rings as well as on vertical nozzle headers. A turn down ratio as wide as 1 : 10 is standard at water pressures between 7.3 and 102 psi at 29 psi constant air pressure, provides a wide range of cooling intensities.
The oval cone spray footprint provides the option to cool a larger area of the strand with one nozzle spray only, which increases the cooling efficiency. Various angles for spray width and spray depth are available to compensate for different spray heights, which meet the requirements of the individual machine types. Large free passages compared to hydraulic and competitor air-mist nozzles result in reducing nozzle clogging. Billetcooler oval cone nozzles cover a flow rate range from .11 to 3.28 gpm.

The benefits
- High turn-down ratio (min./max. flow rate) 10:1 (max. 14:1) for high flexibility and extended product (steel grade) mix, reduces the number of different nozzle types in the machine
- Compressed air consumption reduced by appr. 40% for lowering operation costs

- High Heat Transfer Coefficient (HTC) for high casting speeds
- Compact design ideal for spray rings and vertical headers
- Plate connection for easy and maintenance friendly mounting
- Large free passages prevent clogging for high operation safety with improved plant availability
- Successfully installed in most long product air-mist cooling systems worldwide
- Reduced maintenance costs

Nozzle type	Max. water flow rate	Operating water pressure	Max. air flow rate	Operating air pressure	Spray angle
Billetcooler oval	3.54 gpm	7.3 – 102 psi	7 SCFM	14.5 – 58 psi	60/90° (wide) 30/45° (deep)

Benchmark data only, individual nozzle data to be specified
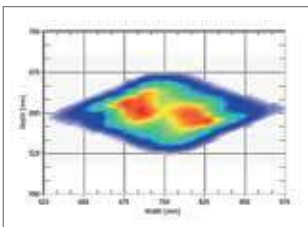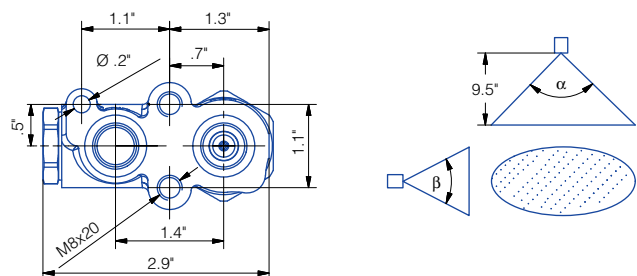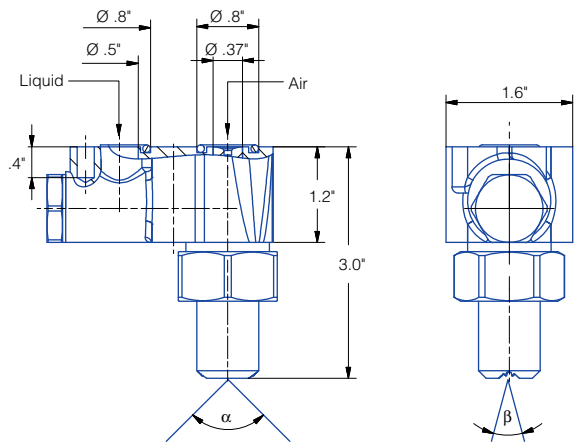
Liquid distribution Billetcooler Oval