



BETE[®]
PERFORMANCE THROUGH ENGINEERING

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BETE's mission goes beyond just selling spray nozzles: It is to provide engineered spraying solutions that exceed customer expectations in every detail.

FULL CONE



FEATURES

- Conical shape with liquid throughout
- Spiral consists of several concentric hollow cones to produce a full cone effect with fine atomization

APPLICATIONS

- Quenching and Cooling
- Dust Control
- Gas Cooling and Scrubbing
- Spray Pond Cooling
- Packed Bed Distribution



HOLLOW CONE



FEATURES

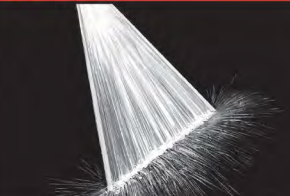
- Thin ring of liquid
- Conical shape with liquid at periphery

APPLICATIONS

- Gas Product or Material
- Dust Control
- Chemical Injection
- Scrubbing
- Flue Gas Desulfurization (FGD)



FAN



FEATURES

- Thin, flat sheet of liquid
- More impact force than full or hollow cone

APPLICATIONS

- Coating
- Cleaning
- Conveyor Washing
- Sanitation
- Washing & Rinsing
- High Impact Washing



MISTING



FEATURES

- Produces fog or mist
- Very small droplet size and relatively small flow rate
- Drip-free options available

APPLICATIONS

- Dust Control
- Humidifying and Moistening
- Gas Conditioning
- Odor Control



AIR ATOMIZING



FEATURES

- Compressed gas, typically air, used to increase atomization
- Smallest drop size
- Low or high-flow options

APPLICATIONS

- Coating
- Lubricating
- Cooling
- Humidification and Moistening
- Dust Control



Since 1950, BETE has put nozzles into deep sea, deep space, and everywhere in between.

BETE offers a complete spray nozzle product line with thousands of different spray nozzles.

BETE can perform every process in-house: from casting, to machining, to assembly – manufacturing nozzles in hundreds of different materials and material combinations.

BETE is best known for our ability to find creative solutions to difficult spraying challenges.

Visit BETE.com for comprehensive spray nozzle tools, case studies and literature.

TANK WASHING



HydroWhirl S

- Cleans more quickly, and uses less water than static tank washers
- Laser welded for durability
- Surface finish of 0.8 µm (microns) Ra or better: ideal for sanitary applications



HydroWhirl Poseidon

- Slow rotation speed provides higher impact and more efficient cleaning
- Durable PTFE ideal for harsh chemical environments – corrosion resistant
- Made from FDA compliant materials for use in Clean-in-Place (CIP) applications



HydroWhirl Orbitor

- High impact jet machine
- Designed to meet hygienic standards
- Ideal for use in larger tanks and where the product is difficult to clean



TW

- Clog-resistant spiral design
- Energy efficient
- Compact design; fits small openings



HydroClaw

- Three times the free passage of a spray ball
- Unique, patented, clog-resistant design with no moving parts
- Made from FDA compliant 316L stainless steel for use in food-grade and sanitary Clean-in-Place (CIP) applications

LANCES, QUILLS, HEADERS AND MANIFOLDS

Retractable Spray Lances

- Inspect and service nozzles without disrupting process
- May include lance, isolation valve and retraction mechanism



Injection Lances

- Drop in solution
- Simple pipe and flange assemblies
- Complex code compliant fabrications

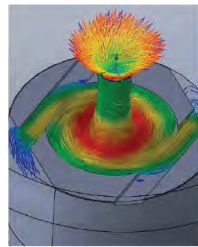


Spray Manifolds

- Uniform coverage
- Optimize liquid/air flow and nozzle placement



ENGINEERED PRODUCTS, SERVICES AND SYSTEMS



Advanced Contract Engineering Services

- Spray laboratory complete with an experienced and dedicated team of engineers, designers, and technicians
- Droplet size measurement and analysis
- Quantitative liquid distribution analysis
- Computational Fluid Dynamics (CFD) and structural analysis software
- Physical model studies and prototype fabrication



Custom Designed Spray Systems

- Systems typically include nozzles, lance, mounting hardware, pumps, instruments, and stand-alone or integrated automatic and PLC controls; mounted on a skid
- Gas cooling and conditioning
- Material quench
- Wash down and CIP
- Application of lubricants and coatings

Learn more about our Engineering Services at BETE.com

BETE Fog Nozzle Inc.

The most responsive customer service in the industry. Innovation is a BETE attribute and we are proud that over 60% of the nozzles we ship have been customized to meet your needs.

Our outstanding team provides:

Custom spray solutions, including control systems and pump skids

The ability to solve unique and complex process challenges

Consistent quality – BETE nozzles are subjected to rigorous inspection throughout the manufacturing process

Custom designs and fabrications – a BETE specialty

Multiple certifications, approvals, codes and standards are available – FM, UL, ATEX, ASME

Technical expertise, application assistance, engineering design and support that draws on over 70 years of experience in applications engineering

Spray nozzles workshops, including Nozzle Basics and Nozzle Maintenance, on-site or in-house



By using BETE as a single source supplier, you will have confidence in knowing that our vast experience is working hard to provide you the very best possible spray solution.

We value your business and look forward to the opportunity to be of assistance.