



CUSTOM ENGINEERED SPRAY SYSTEMS & FABRICATION SOLUTIONS

WORK WITH ONE SUPPLIER FOR ALL YOUR DESIGN, FABRICATION, & TESTING REQUIREMENTS

Leveraging over 70 years of experience with industrial nozzle design, advanced engineering, and manufacturing resources, BETE has grown far beyond spray nozzles. BETE's deep understanding of spray nozzle and fluid system performance allows us to design a system to meet your specific operational needs and requirements.

Many industries, including refineries and chemical plants, have counted on BETE to supply complete fabricated assemblies or spray systems. If you want to improve an existing spray system, we can evaluate your system and recommend changes to improve the performance and reliability. Our departments work seamlessly together to ensure the products you receive are of the highest quality.

MANUFACTURING CODE COMPLIANCE, TESTING & VALIDATION

Fabrication is BETE's specialty, from complex ASME Code compliance to simple flush pipe and flange assemblies. Our highly qualified welders have extensive experience welding dissimilar metals and exotic alloys, including nickel and cobalt alloys.

Our engineers start by incorporating all your project specifications to ensure we meet your design requirements, including any referenced industry codes, to deliver a fully compliant fabrication.

Design Requirements

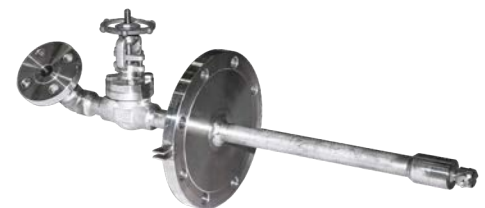
- ✓ ASME B31.3 - Process Piping
- ✓ ASME B31.1 - Power Piping
 - Boiler External Piping (PP Authorization)
 - Nonboiler External Piping
- ✓ ASME Boiler & Pressure Vessel Code Section VIII, Division I (U Authorization)
- ✓ Welding Qualification to ASME B&PVC, Section IX
- ✓ Canadian Registration (CRN)
- ✓ NACE Compliance

Mechanical Inspection

- ✓ RT - Radiographic
- ✓ UT - Ultrasonic
- ✓ PT - Visible Dye Penetrant
- ✓ Hydrostatic
- ✓ Hardness
- ✓ PMI - Positive Material Identification

Performance Inspections

- ✓ Flow
- ✓ Spray Angle
- ✓ Cone Shape
- ✓ Droplet Size
- ✓ Special Customer Requirements



IMPROVE YOUR PROCESS WITH PERFORMANCE SPRAY ENGINEERING

SPRAY LANCE, INJECTOR, & QUILL SOLUTIONS

Use BETE spray lances, injectors, and quills for injecting liquid or gas into a process stream to create stable conditions for the safe and efficient operation of downstream plant components.

Quills

- Pipe & flange
- Stationary or retractable
- Used to introduce metered chemical injection into process



Spray Injectors

- Drop-in solution
- Single or Two-Fluid (Air Atomizing) spray nozzles
- Complex code compliant fabrications



Retractable Spray Lances

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

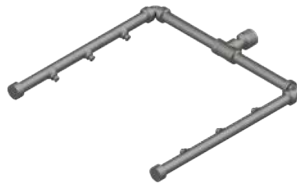


SPRAY HEADER, SPARGER & SPOOL SOLUTIONS

Precise nozzle arrangement on spray headers, spargers, and spools is as critical as selecting the right nozzle for your application. BETE can fabricate the piping asection for nozzle installation.

Spray Headers

- Multiple nozzle arrangements
- Common for spray tower or area distribution
- Branched or ring designs



Spargers & Spools

- Entire spray injection assembly for bolt-in or weld-in installation
- Consists of duct, vessel, or pipe section with spray lance(s) or quill(s) installed



CUSTOM ENGINEERED SPRAY SYSTEMS SOLUTIONS

Our automated spraying systems can operate as stand-alone units or further integrate with central plant control systems for remote monitoring and control input.

From process engineering and nozzle selection assistance to implementing automated spraying systems, BETE can customize the system design to fit your operational needs and requirements. Our engineered systems may include any or all of the following components.

- Nozzles/Lances
- Piping/tubing/fittings
- Valves
- Pressure regulators
- Strainers/filters
- Solenoids
- Automatic control valves
- Pumps/motors
- Pressure/temperature/flow sensors
- Variable Frequency Drives (VFD)
- Custom design control panels
- Switches, relays & other electrical hardware
- Structural skid frames



LEARN HOW THE LATEST SPRAY TECHNOLOGIES SAVE TIME, MONEY, AND RESOURCES



CONTACT US | 413.772.0846 | sales@BETE.com | www.BETE.com

