

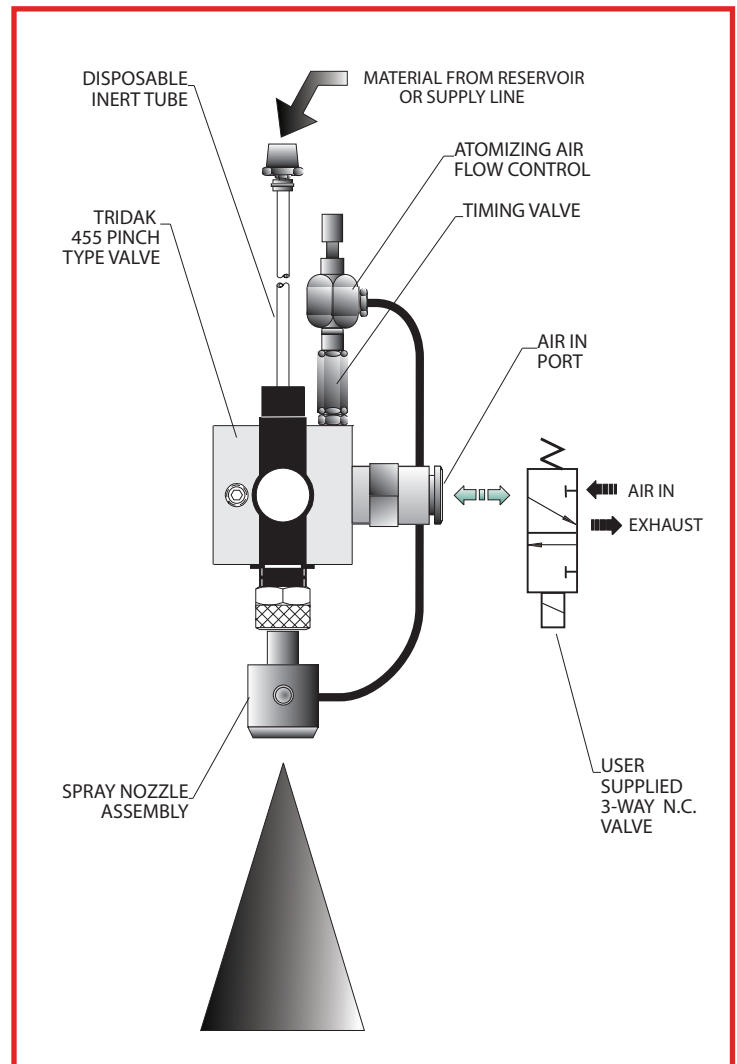
Tridak "Micro Spray" System Delivers Precise Control of Pattern and Volume

The Tridak™ "Micro-Spray" is a compact, self contained, package that includes a valve, nozzle, and nozzle controls. The valve is Tridak's patented model 455 pinch valve which has a completely inert, disposable wetted system with precise controls over both flow and the deflection of the tube (a patented feature that extends tube life and enhances repeatability). The spray nozzle is an all stainless external air mix type that contains a micro bore nozzle. Controls are integrated into the valve for adjusting the air/fluid ratio. The controls also feature a built-in delay system that atomizes the tiny droplet that would normally remain on the nozzle when the valve is shutoff. This enhances repeatability and guarantees drip free operation.

To use the system the operator connects the tubing that runs through the valve to a suitable pressurized container. The air that will control the pinch valve is connected from a user supplied 3-way valve to the air in port on the pinch valve. The system (valve and spray) goes on automatically when the actuating valve is activated and remains on until the actuating valve goes off. Proper spray volume is achieved by adjusting 4 parameters: 1) The fluid pressure; 2) the amount the valve opens; 3) the amount of air relative to the amount of fluid, and; 4) the amount of time the valve is on. Proper adjustment of these items yields a precisely controlled repetitive spray pattern and dispensed volume. The system is particularly suited to the spraying of low to medium viscosity materials.

Tridak supplies the spray system in a number of forms:

- a) the 455 valve and nozzle for use with the customers time and pressure controls
- b) the 455 valve and nozzle with Tridak controls
- c) the nozzle adapted to other Tridak valves
- d) the nozzle by itself.



Flow Rate / Pattern

The 'Micro-Spray' system provides material and flow rates that are typically in the 0.001 to 0.200 ml per minute range. The spray pattern of a low viscosity material is approx. a fourteen degree conical pattern as shown in the illustration.

