

# How to Benefit From Using Eductor Nozzles



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There are many types of spray nozzles designed for similar applications, while other nozzles are designed to handle a specific task.

One specialized type of nozzle is known as an eductor nozzle. These are sometimes referred to as tank mixing nozzles and can be used in many areas of manufacturing and industrial applications.

In this article, we will explain exactly what an eductor nozzle is and why they are more effective than electric pumps.

#### What Is An Eductor Nozzle

An Eductor is a type of nozzle specifically designed to be submerged in a closed or open tank filled with a liquid or mixture. The nozzle is then used to mix liquids within that tank.

By mixing or agitating the fluids within the tank, eductor nozzles keep suspended particles evenly distributed and prevent sediment or build-up.

These nozzles can also be used to introduce new liquids or substances into an existing tank. An example of this would be adding dyes or other additives to a solution quickly in an automated way.

### What Parts Make Up An Eductor Nozzle

The main benefit of the eductor nozzle is its extreme simplicity. This one-piece construction contains no moving parts that can fail or become easily obstructed.

The BETE TurboMix® is an example of an eductor nozzle that can be completely submerged without being obstructed. The simple design is very robust for handling the most demanding applications.

## How Does An Eductor Nozzle Mix With No Moving Parts?

Eductors are completely submerged below the liquid in the tank. They are designed to take the velocity of the fluid pumped into the nozzle and convert it into a low-pressure zone that cause surrounding liquids in the tank to enter the nozzle. The tank contents are mixed effectively with the pumped fluid and the amount of fluid that exits the nozzle is three to five times the amount of fluid pumped. This multiplying effect produces greater mixing while using less pumping capacity.



#### Where Can An Eductor Nozzle Be Used?

Eductor nozzles can be used in any industrial application to agitate the liquid, dissolve powdered solids into liquid, and mix two or more liquids in a tank without the use of baffles or moving parts inside the tank.

An eductor nozzle can work almost anywhere that a submersible electrical pump is currently being used. The eductor nozzle reduces maintenance and can also lower costs associated with pumps due to its inherent simplicity.

In cases where an electric pump cannot be used an eductor nozzle is the perfect solution. This can be due to the corrosive

nature of the solution being mixed or environmental factors that make it impossible for a traditional electric pump to operate within the tank.

## More Information On Eductor Nozzles

Choosing the right nozzle for your industry can ensure cost savings and increased efficiencies in manufacturing and other industrial application to speak with one of our product specialists to determine the perfect nozzle for your industry. With over 70 years of experience in the spray nozzle industry, we have the knowledge to help improve your manufacturing and industrial processes with specific spray nozzles that perfectly fit your applications.