

An Introduction to Jet Pump Versatility

Penberthy jet pumps can provide a practical alternative to more complex - and costly - process components when a simple, cost-effective way to pump, mix or heat is the answer to your process need. Reliable operation from a variety of power sources allow jet pumps to perform effectively on a wide array of process applications.

Not only can jet pumps be used to perform singular duties such as pumping liquids to drain sumps and tanks, or heating liquids in-tank for cooking or circulating, but they can also be used to achieve these functions simultaneously. For example, you can heat liquids as they are pumped for producing scalding sprays, or mix liquids in-tank while adding a second liquid at the same time.

Simple operation

While Penberthy jet pumps differ in appearance, all operate basically the same way. An operating fluid under pressure enters through the inlet and travels through the nozzle -- where it is converted to a high-velocity stream which decreases the air pressure in the suction chamber, creating a partial vacuum that draws material to that area where it is entrained by the operating medium. The entrained material is then carried through to the discharge outlet and dispelled at a pressure greater than that of the suction stream but lower than that of the operating medium.

Inherent reliability

The reliability of Penberthy jet pumps is inherent in their simple design: no moving parts, no required lubrication, little maintenance, easy installation without special structures or foundations. All are self-priming. And all Penberthy models are available in a variety of materials to maximize worry-free service life.

A choice of operating sources

Penberthy jet pumps let you choose the operating source that's most convenient for your application. These include aqueous and non-aqueous liquids, steam or even compressed gas. Economical sources which may already be available at your existing facility. And possibly more accessible than another power source such as electricity.

General Listing of Applications

- Pumping Liquids with Liquid
- Pumping Liquids with Steam
- Pumping Gases with Steam/Gas
- Pumping Gases with Liquid
- Heating Liquids In-Tank
- Heating Liquids In-Line
- Mixing Liquids
- Transporting Solids

Terms

- Motive - the fluid used to "power" the eductor
- Suction - the secondary fluid being educted
- Discharge - the combined motive/suction fluid stream exiting the eductor

Standard Cast Materials of Construction

- Low Lead Bronze
- Iron
- Carbon Steel
- 316 STS

Additional cast materials and polymer construction are also available upon request.