**STEAM JET SYPHONS E1800 SERIES**

- **Steam Jet Syphons** are a class of ejector pumps that are used to heat, mix and lift fluids that range from slurries to liquids.
- The Operation of **steam jet syphons** are similar to that of other ejector pumps and it uses the kinetic energy of the **Steam** which is the motive fluid to entrain and transports the fluids that are to be handled.
- Steam Jet Syphons are used for emptying storage tanks, pumping out of liquids, mixing and heating of liquids, priming of pumps, handling and transferring slurries etc.
- Steam Jet Syphons are especially suitable for those processes which require heating and pumping simultaneously and also these are capable of working in corrosive and erosive environment.

**PRINCIPLE OF OPERATION**

- The motive fluid which is steam at high pressure is utilised in pumping a low pressure water-based liquid which is our suction fluid against a counter pressure (discharge pressure).
- Steam enters the motive nozzle and undergoes an isentropic expansion because of which the inlet pressure energy is converted to velocity energy (Kinetic Energy).
- The momentum carried by the steam is utilised to lift, pump and entrain the suction fluid. The steam then condenses into the suction fluid while passing through the diffuser.
- The resultant heated liquid stream enters the venturi tail wherein the velocity energy is converted to pressure energy.
- The motive steam is the available energy source that performs both entrainment and transportation of the suction fluid.

**APPLICATIONS**

- **Steam Jet Syphons** find a wide variety of applications in a diverse range of industries. Some typical applications are:
  - Pumping of aqueous solutions such as sulfuric and hydrochloric acids.
  - Pumping of radioactive waste water from holding tanks or decay vessels.
  - Pumping of food products, in-line cooking and blanching of Foods
  - Heating of liquids and slurries
  - Providing heated water to hot water supply stations
  - Pumping filtrate from vacuum vessels and condensate from surface condensers.
  - Removing liquid from pickling baths, extracting chemicals in reaction chamber.
  - Handling soap solutions in textile plants, Pumping sugar juice and various liquids in canning plants.
  - Supplying heated water to the jackets of stills and graining bowls.

**ADVANTAGES**

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<tr>
<th>Self Priming</th>
<th>Easy to install</th>
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<tr>
<td>Simple &amp; Safe</td>
<td>No moving parts involved</td>
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<td>Don't require any maintenance</td>
<td>Don't require Electricity</td>
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<td>Low Cost</td>
<td>Performs Double Duty (Pumping &amp; Heating)</td>
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### INDUSTRIES UTILISING STEAM JET SYPHONS
- Chemical
- Paper & Pulp
- Pharmaceutical
- Food
- Petrochemical
- Marine & Power Industries.

### MATERIAL OF CONSTRUCTION

Steam Jet Syphons can be made from practically any machinable material. Depending upon the nature of the fluid to be handled, the syphons could be made out of the following:

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<tr>
<td>2. Bronze</td>
<td>5. Hastelloy</td>
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<tr>
<td>3. Stainless Steel</td>
<td>6. Carbon Steel</td>
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### END CONNECTIONS

Flanged to **ANSI B16.5 150#** as a standard. We can also provide other standard end connection as per the requirement of the Customer.

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**PRIMETECH**

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