

## **Suction Diffusers**

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Suction diffusers are installed at the suction side of a pump in either a horizontal or vertical position. It is designed to remove any foreign matter or impurities that may be hazardous to the pump or other system components, which may also affect their performance, while providing proper flow conditions to the pump. Suction diffuser has integral straightening vane to ensure uniform flow to the suction inlet of the pump and provides minimal pressure drop with its oversized body and screen. Suction Diffusers incorporate the functions of a strainer, flow straightener, elbow and pipe reducer in one compact unit thereby reducing installation costs.

The Suction Diffuser is designed to eliminate the recirculation zones that develop in most suction diffuser designs available on the market today. These recirculation zones can lead to increased pressure drop across the suction diffuser and a high degree of variance in the velocity profile as flow enters the pump suction. The flow will be directed completely out of the Suction Diffuser and into the pump suction, providing a more uniform velocity profile that reduces uneven stress on the pump impeller and shaft. As a result pump efficiency is more effectively retained, pumping system energy costs are reduced, and the life of the pump is extended.

They can be supplied with a bolted cover and o-ring seal, cast supporting pads for easy mounting of standard ID support foot, plugged drain connection, optional screens, mesh liners, covers and various materials.

#### **Features and Benefits**

- Space saving elbow design facilitates a close transition between return piping and pump suction, eliminating the need for straight lengths of pipe and separate long radius elbows or reducing elbows.
- Available in various materials of construction like Carbon Steel, Stainless Steel, Cast Body, etc
- Full Length straightening vanes assure uniform flow pattern



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#### **Applications:**

- **District Cooling**
- Process Industry
- **Chemical Industry**
- Oil and Gas
- **Waste Water**

for pump inlet

- Optional pressure/temperature ports permit checking of system conditions and verification of start-up strainer
- Choice of carbon steel or stainless steel internals.
- Plug/Blow down connection permits routine maintenance

### **Filteration Engineers**

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