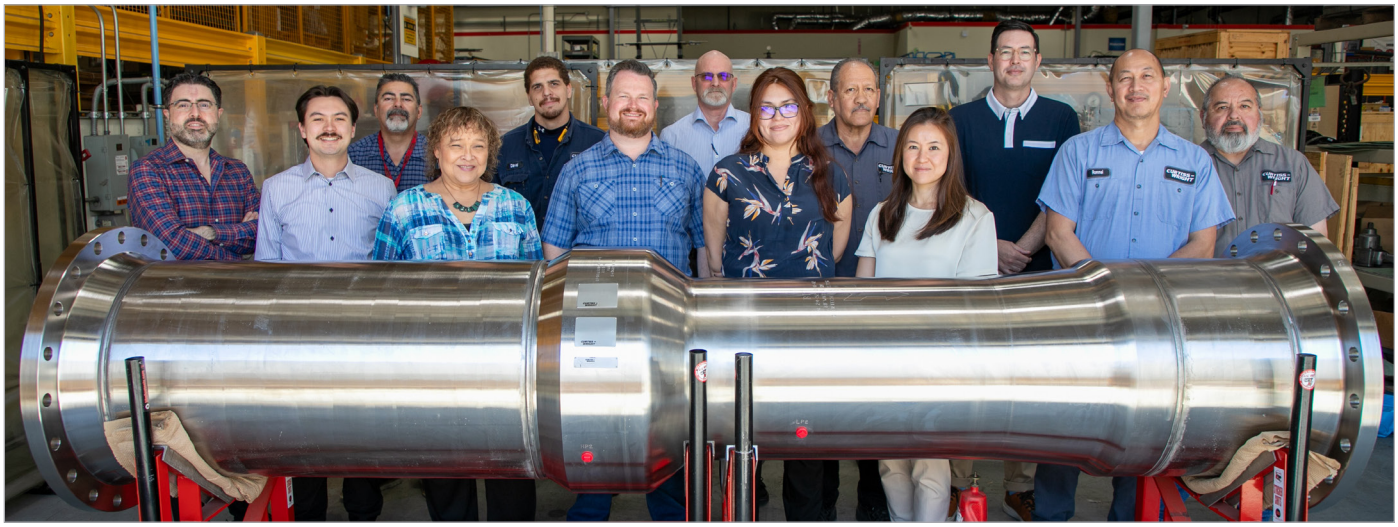
BIF

Universal Venturi Tube

Nuclear Power Products and Services



About our Teaming Partner

Curtiss-Wright has partnered with BIF to provide their full portfolio of BIF products to the global nuclear market, including the Universal Venturi Tube. This high-accuracy, precision-manufactured flow meter offers best-in-class accuracy for harsh environment process conditions.

With extensive experience in designing and manufacturing specialized valves and instrumentation, including butterfly valves, venturi flow meters, and water nozzles, BIF has been installed in main steam and feedwater systems since the commissioning of U.S. nuclear power plants.

Utilizing Curtiss-Wright's robust Nuclear Quality Assurance Program, the BIF product portfolio is available for Commercial Grade, Safety-Related and ASME Section III applications.

BIF

Universal Venturi Tube

The BIF Universal Venturi Tube is a high-accuracy, precision-manufactured flow meter designed for the most arduous of process conditions. The patented UVT hydraulic shape provides a low noise and repeatable high-accuracy flow signal for the most difficult flow meter applications. End connections can be matched to the needs of the existing process system or new process system requirements and NIST traceable flow laboratory calibration is available.

General Specifications

- Sizes: 2” to 48” diameter
- ANSI Pressure Class: 150 to 2500
- End Connections:
  - Flanged
  - Screwed
  - Socket Weld
  - Butt Weld
- Quality Class:
  - Commercial
  - Safety-Related
  - ASME Code, Class 1, 2, 3
- Materials:
  - Stainless Steel
  - Carbon Steel
  - Bronze
  - Copper Alloys
  - Special materials such as Monel or Inconel

Principles of Operation

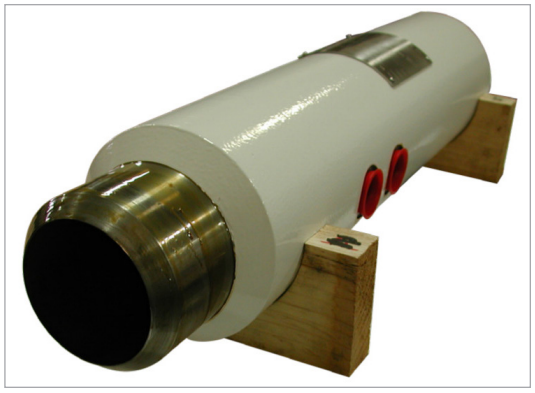
The Venturi measures flow by creating an area of higher velocity in the throat of the device. This higher velocity comes at a decrease in the potential energy of the process fluid that can be measured as a lower pressure. Thus the difference in pressure between the inlet of the venturi (pipe diameter) and the throat of the venturi is proportional to the flow of the process fluid. With no moving parts and no replaceable parts, the BIF Universal Venturi Tube is designed for lifespans of greater than 60 years.

Plant Designs

- PWR
- BWR
- SMR
- CANDU

Typical Plant Applications

- Main Feedwater Flow
- Auxiliary or Start-up Feedwater Flow
- Main Steam Flow
- Condensate Flow
- Feedwater Heater Steam Flow (High and Low Pressure)
- Reheat Steam Flow
- Reactor Coolant Flow
- Tertiary Cooling Water Flow
- Reactor Water Cleanup System
- CVS or CVCS System Flow Determination



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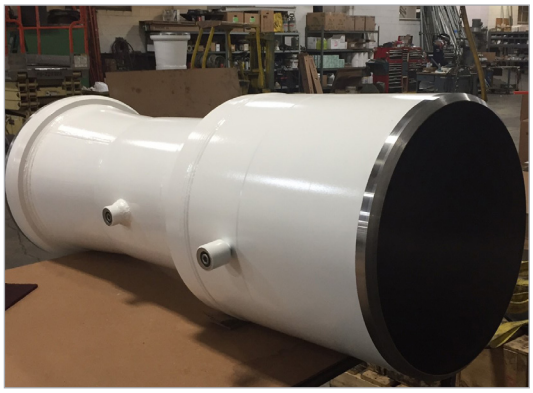

Full Venturi Inlet End

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