

V-Cone Application Guide

Industry: Metals & Mining/Power station in a Metal Mill

Application: Saturated Steam supply from Power Station to metallic Magnesium plant

Measurement Challenge/Difficulty: Steam measurement is always a challenge, as the traditional Pitot Tubes and Orifices are of low accuracy, low rangeability, plus the ID of the process tube is usually unknown and the straight pipe requirements are difficult to meet.

Previous Method: This was a new construction project. All other flowmeters (Pitot, Insertion type Vortex or Turbine) were considered. However, these technologies could not be used as they do not provide accurate enough measurement (point measurement, not full cross section measurement) and the straight run requirements could not be met.

Solution: The V-Cone technology was the only single solution to all of this applications' problems. The key V-Cone features that the customer indicated were the short straight pipe run requirements, flow conditioning and velocity profile flattening, energy savings, and excellent repeatability.

Date Installed: April 1995

System Diagram: None

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Additional Comments: This VIP customer is very happy with the performance and has purchased 20 more V-Cone's for steam applications in the same power station. Additionally, the customer plans to purchase 16 more (14" to 60") for air at very low pressure.

Literature No.

24509-84/Rev. 1.1

Industry:

Metal Mill

Niche Market:

Facilities, Power Generation

Process:

Condensate from Power Station

Product:

Magnesium

Fluid:

Saturated Steam

Viscosity & Sp.G:

N/A

Flow Rate:

18,000 to 200,000 kg/h

Pressure:

.5 to 1.5 bar gauge

Temperature:

120 to 150 degrees C.

Size:

42 inch

Date:

April 1995

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