FOX
THERMAL INSTRUMENTS, INC.
505 Mayock Road, Suite A4, Gilroy, CA 95020
Telephone: 408-847-2090 ♦ Fax: 408-847-1806

Fox Thermal Mass Flowmeters vs.

Vortex Flowmeters in Natural Gas Applications

An engineer from a major paper company contacted Fox to request information about flow measurement of natural gas to a boiler. The engineer already had Vortex Flowmeters installed on other boilers but was unhappy with their performance when the boiler loads were at low firing rates. The meters were unrepeatable and the output would eventually drop to zero. This occurs with vortex meters because vortices are not generated when the flow velocity is low. The engineer was also unhappy with the additional expense of performing pressure and temperature compensation in order to determine SCFM.

A comparison was made between the Fox Model 10A Thermal Mass Flowmeter and the Vortex Flowmeter with information provided by the engineer:

Application: Natural gas, 3" pipe, 20 psig, 60 degrees F, flow range 0 to 700 SCFM.

The flow range capability of the two flowmeters was determined:

Vortex Flowmeter flow range: 140 to 1695 SCFM

Fox Model 10A Thermal Mass Flowmeter flow range: 0 to 850 SCFM

The Vortex Flowmeter had the capability to measure at a higher flow rate but in this application it simply was not needed. The Fox Flowmeter was the perfect fit for the application and because the Fox meter measures SCFM directly, no additional equipment was necessary to perform pressure and temperature compensation. The engineer selected Fox for this application.

Free article: FOX would be happy to send you the article "Simple Techniques To Optimize Boiler Efficiency" by Randall L. Hayes, P.E. Please contact us.

Also ask us about flowmeters for compressed air applications.