# CANNON increases process safety, saves CAPEX and OPEX with Rosemount Quad Vortex

#### **RESULTS**

- 2003 Redundancy and SIL 3 certificate, all in one device
- 40% Savings in CAPEX costs
- 40% Reduction of construction cost of the metering skid
- 50% Reduction of instrument installation costs
- 50% Reduction of maintenance costs



# **APPLICATION**

Rosemount 8800 quad vortex for critical fuel measurement

### **CUSTOMER**

Cannon Bono Energia, Milan, Italy, a leader in design, engineering and production of industrial boilers.

# **CHALLENGE**

Boilers for industrial use must achieve great reactivity to meet the demands, but at the same time they have to guarantee that the ratio between fuel and oxygen is respected, to avoid unsafe conditions or inefficient flames.

The high rangeability and the variety of fuels made it necessary for Cannon to determine flow measurement fully independent of the process density while being reliable and capable of guaranteeing high safety levels on 2003 SIL applications.

A main requirement from Cannon Bono Energia, the meter must be easy to install to save in installation costs, and compact to fit with short runs.

#### **SOLUTION**

With Rosemount Vortex Quad, Cannon Bono Energia satisfied all their customer's needs.

The Vortex Quad is a compact, reliable and accurate meter with 4 independent primary elements (sensors) within a single flow tube allowing 4 independent outputs.

"With Emerson Vortex meter, we have realized safe boilers and saved considerable costs"

**Gianfranco Gentile** Technical Director





Cannon boiler under production





#### **POWER**

The three measurements dedicated to system safety are fully compliant with the SIS regulations, and the fourth output is used for process regulations.

The compactness of the design helped achieve a 40% reduction in the total CAPEX costs, while installation costs have been reduced up to 50%. The size of the metering skid, where the Vortex Quad is installed, is reduced with a cost saving up to 40% in the realization of the skid itself.

Furthermore, the Rosemount 8800 quad vortex with best-in-class design with a non-wetted sensor, helps reduce the maintenance costs up to 50% compared with other measurement technologies

"This is the most reliable and flexible Vortex meter we have ever installed"

**Domenico Cannavale**Control and Instrument Engineer



Emerson's Rosemount Vortex 8800 Quad can be used in safety installations up to SIL-3

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