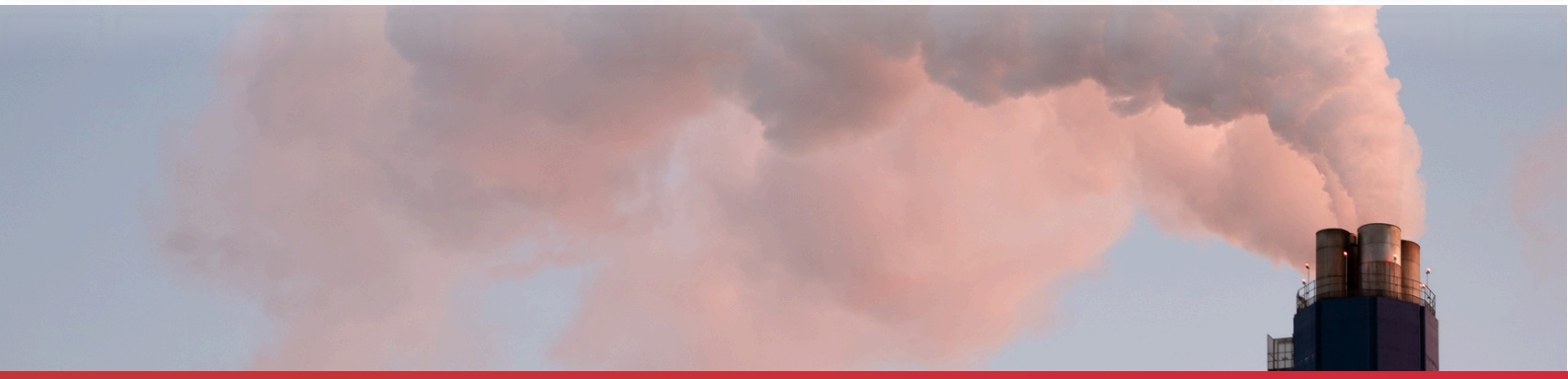
PROCESS INSTRUMENT SOLUTIONS

FLOW



FLOW MEASUREMENT OF HYDROGEN FOR COMBUSTION APPLICATIONS

BACKGROUND

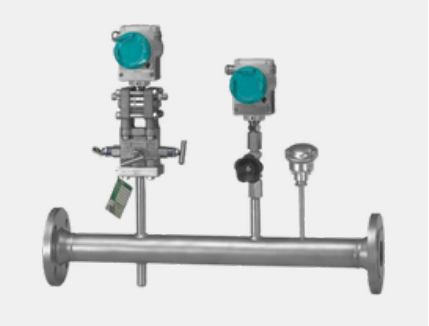
A request to measure the mass flow of gas was made by a renowned gas turbine manufacturer in Germany. SKI GmbH accepted this challenge and came up with an in-line flowmeter to provide years of repeatable and accurate flow data.

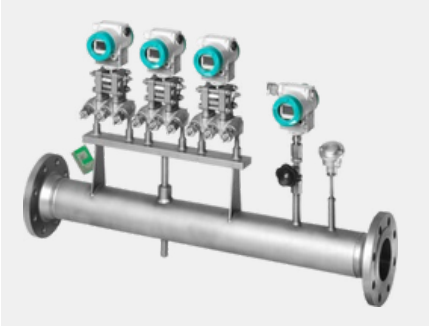
SKI
SIEMENS

CHALLENGE

Hydrogen, which can currently only be produced in a climate- neutral way with very low efficiency and high energy expenditure, is becoming increasingly important in the context of CO2 reduction. Due to its low density and small molecule size its use as a fuel gas places special demands on measurement technology.

Also in the field of power generation using gas turbines, hydrogen is now added to natural gas as an additional fuel to reduce CO2 emissions.





SOLUTION

The SKI GmbH SDF sensors have been successfully used for years by a renowned burner manufacturer to measure pure hydrogen as fuel gas. The devices of the AccFlo®LPD series, which for more than 10 years have ensured the reliable use of gas turbines of a renowned manufacturer for measuring natural gas distribution, are now also successfully used in the operation of gas turbines with natural gas/ hydrogen mixtures as fuel gas.

RESULT

As early as 2015, SKI delivered the first device for measuring the mass flow of pure hydrogen as combustion gas.

SKI GmbH are pleased to be able to make a contribution on the way to the most completely CO2-neutral combustion and power generation possible.

EQUIPMENT SUPPLIED

SKI GmbH AccuFlo®LPD mass flow meter with certified accuracy for reliable measurement with low pressure drop of gases

Siemens SITRANS P420 differential pressure and flow transmitter with SIL

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