



- ✓ SME/CEMS
- ✓ ANALYZER CALIBRATION
- ✓ UNI 14181

A SOLID BUSINESS CASE IN COLLABORATION WITH **COEMI S.R.L.**

GENERAL INFORMATION ABOUT THE PROJECT



TARGET OF THE PROJECT:

Calibration of an SME/CEMS



DEPARTMENT:

Analysis instrumentation



HEAD OF PROJECT MANAGEMENT:

Ing. Maugeri



ROLE OF MCQ INSTRUMENTS:

To create the standard test mixture to check the calibration of the analyzers

MORE INFORMATION ABOUT COEMI S.R.L.

Coemi currently operates in the Oil & Gas, Chemical, Petrochemical, Civil, Military, Pharmaceutical, Food, Manufacturing and Alternative Energy markets.

The constant enhancement of its staff, made up of over 300 skilled employees, allows Coemi to manage challenging and complex projects, integrating production units with other specialized resources present in the area where necessary.

DESCRIPTION OF THE APPLICATION AND THE TARGET

La Versalis di Priolo Gargallo (ENI Spa Group) in Siracusa has a chimney for the exhausted gases come from the combustion oven of the Ethylene plant. An SME/CEMS system continuously measures the pollutant's level to send its value to the local governing institution in charge to control the pollution level with respect to compliance with AIA prescriptions.

Based on the UNI 14181, you have to make, two times per month, a control QAL3. It concern the linearity verification of each analyzer on 5 points of the full scale: 0-20%, 0-40%, 0-60%, 0-80%, 0-100%. For each point we need a gas cylinder with a specific mixture.

Gas Blender 100 Series will be used to create the standard test mixture to check

the calibration of the analyzers Siemens Ultramat and Oxymat inside the SME/CEMS cabin.

In this way we can use only one gas cylinder (80% of the pollutant in N2) and a gas cylinder of N2 to create all the concentration we need to check QAL3.

This will allow to:

- Halve the gas cylinder we have to purchase each time
- Halve the handling of the gas cylinder from the customer's warehouse to the plant.
- Optimize the intervention time
- Reduce costs
- Improve safety condition of the operators regarding handling and use of cylinders.

BENEFITS AND SAVINGS

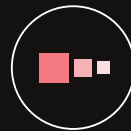
A traditional method would require at least 2 mass flow controllers, an external control unit, a power supply, and a tubing system, or a massive investment of time in pre-mixed gas cylinders. Indeed Coemi S.R.L. should had purchase much more of 20 liters of mixture gas cylinders.

With MCQ Instruments, the Coemi S.R.L. required only a single Gas Blender 100 Series device and its Software in Pro Version. The simple combination of these two factors has made possible an exponential number of experiments, reducing time, efforts, investments and collecting much more results. In pills:



COST SAVINGS: **-50%**

From 5 gas mixture cylinders to 2. The flexibility of our Gas Blenders reduces consistently the gas mixture cylinder you need



GAS MIXER VS MASS FLOW:

The GAS MIXER channels it's more compact than typical flow controller meters and can be specifically calibrated on the mixture to be used.



TIME SAVINGS: **-50%**

More flexibility and time saving to handle only 2 cylinders instead of 5. Halve the handling of the gas cylinder from the customer's warehouse to the plant.



WITHOUT MCQ? **(EXPENSIVE)**

3 Mass Flow Controllers with Power control Unit, tubes, NO-Software and different Gas Mixture Cylinders.



LOWER RISKS HIGHER SECURITY

Operator has to handle less gas mixture cylinder.



SOFTWARE **AUTOMATION:**

Thanks to our Software PRO version and its option "Automatic Program", now Coemi can bring forward experiments in automation, painlessly.

READY TO TALK ABOUT YOUR SOLUTION?

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