

Passive Sample Conditioning Unit (SCU) for Low NO_x & Low SO_x Measurements

CONCERN

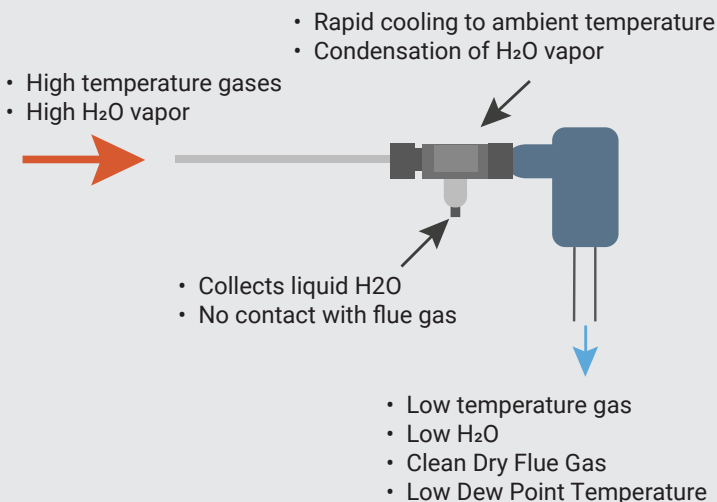
When monitoring emissions from the flue gases in industrial and commercial processes, there is a need for a **good sampling system designed to prevent losses of water-soluble gases** such as NO, NO₂ and/or SO₂ in the sampling lines before they enter the analyzer.

WHY SCU'S ARE NECESSARY

When using a portable gas analyzer for monitoring NO, NO₂ and/or SO₂ ranges **below 50 ppm** or if you are doing Long-term testing (over 40+ min), we need a sampling system designed **to minimize or eliminate** the residence time of the soluble gases in contact with condensing water droplets forming inside the walls of the sampling lines. Otherwise, the measured readings **could be in excess of 20% lower** than the actual values in the process.

OUR SOLUTION

Seitron has designed **Sample conditioning unit (AACP01)** easily mounted between the probe's handle and tip, that allows quick water condensing. As a consequence gas and water separate immediately and **any contact between target gases and liquid water are minimized**. In addition, Seitron analyzers come with a built-in water trap that eliminates any moisture & H₂O remaining in the gas for protection of the sensors & accuracy of the readings.



Water Trap & Filter



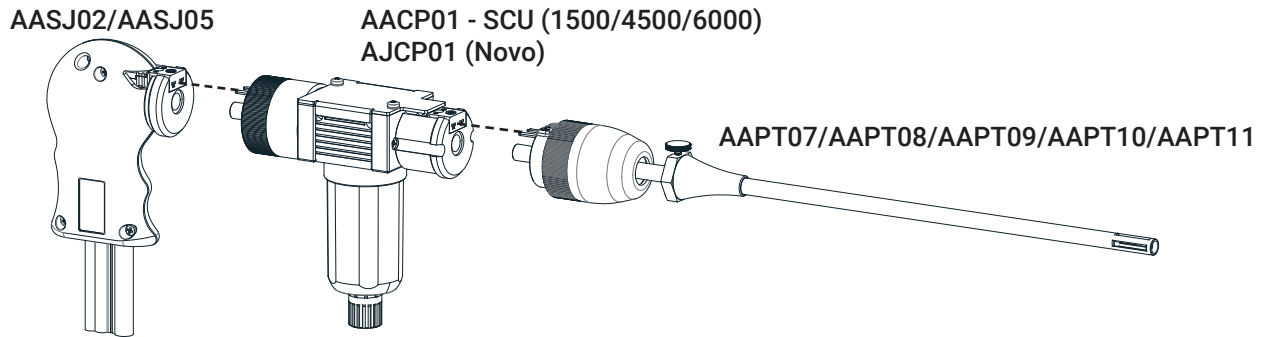
Ambient temperature - Particulate removal - Additional H₂O condensation

Gas Sensors



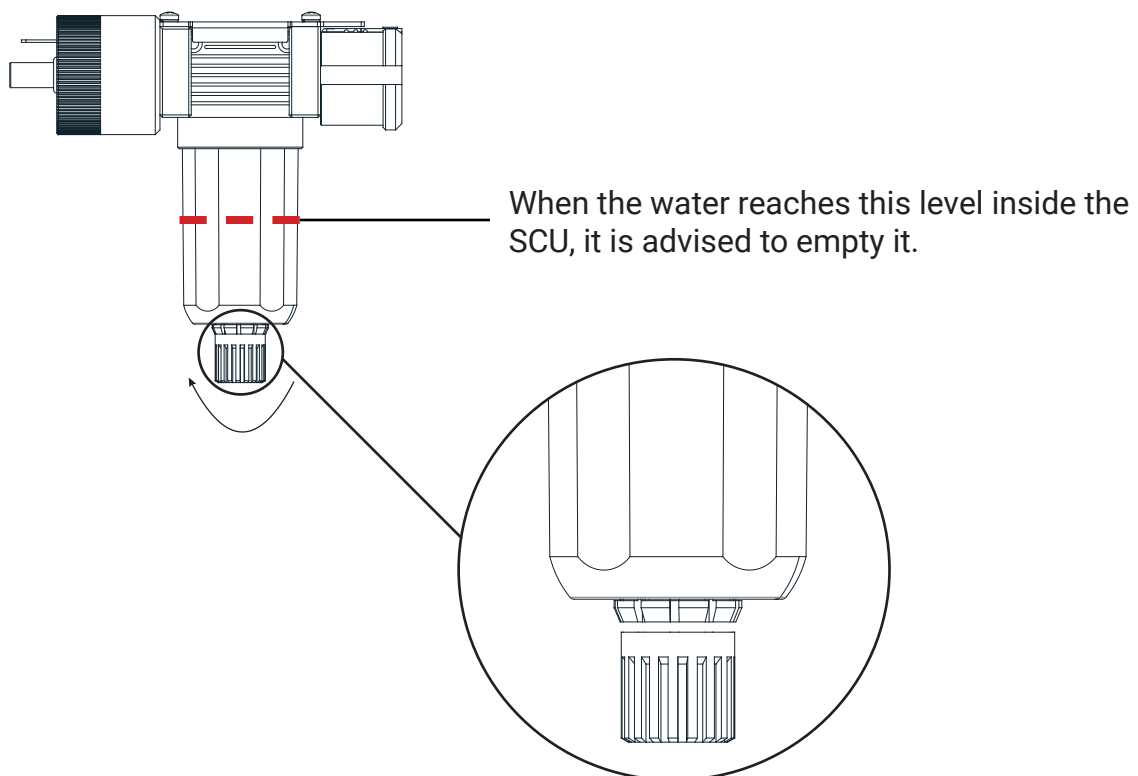
Combustion Analyzer with **Low NO_x or Low SO₂** Gas Sensors

Installation of Sample Conditioning Unit



Turn the black probe tip counter-clockwise to loosen and remove the probe tip
Simply Plug in the SCU (sample conditioning unit) while matching up the thermocouple and sampling tube.
Turn & tighten the metal caps on the SCU and on the removable probe tip to screw the parts together for an air tight connection

SCU Draining



Turn counter-clockwise to remove any condensation after **each** test.
Turn clockwise to tighten and close after moisture is drained.