

Flow Control & Flow Creator

Thermeta Service BV has strongly improved the CO monitoring with the Flow Control & Flow Creator.

Incomplete combustion of natural gas may create CO (carbon monoxide). At the same time, poor combustion creates apart from CO also ethene, which may seriously damage the production. Apart from CO monitoring, the Flow Control with Flow Creator of Thermeta Service BV is indispensable as well for safe CO₂ dosing (carbon dioxide).

Why CO and flow monitoring?

The CO monitoring checks the flue gases by sending a small amount of this through a plastic metering tube, cooling spiral, moist separator, tap and visual flow indicator to the CO measuring cell.

If a break or blockage exists in one of the parts mentioned, the CO₂ dosing will no longer be secured against CO. As a result of this, CO that may be produced by the burner can be transported into the greenhouse, damaging the crop.



Just like the flow monitoring, CO monitoring is essential for the quality of the production. In the present situation, the CO detector only checks the flue gases while CO has already been dosed and after the flue gases may have been rarefied with outside air from the chimney. The CO detector may measure a too low value because of blending of the flue gases. Thus harmful flue gases can be transported into the greenhouse without the CO monitoring interfering.

Solution in the form of the Flow Control & Flow Creator

Thermeta Service BV has developed the Flow Control and the Flow Creator for reliable CO monitoring. By combining the Flow Control with the Flow Creator, pure flue gases are transported directly from the boiler through the Flow Creator (a pump that creates air flow) and the flow sensors to the CO detector. These pure flue gases have not been rarefied, so the CO detector measures the actual CO concentration. The Flow Control checks the flow of the flue gases to the CO detector.

Installation of 2 flow sensors, one on the boiler side and one just before the CO detector, prevents measuring only boiler house air because of a break in the pipe. By installing one of the flow sensors at the upper box of the condenser and therefore at the source, Thermeta can ensure that the CO detector will always be offered flue gases.



Burners of Thermeta Service BV

Advantages

- CO monitoring has been secured against pipe breakage and blockage.
- Also applicable to NO_x meter and ethylene monitor.
- Failure history can be read.
- CO monitoring before the CO₂ valve is opened, making sure that absolutely no CO is transported to the greenhouse.
- Sharp alarm setting possible by suction of pure flue gases.

Purchase

The present CO detector can be maintained when purchasing a Flow Control with Flow Creator. When purchasing a new CO detector, the Flow Control can be installed in one housing together with the CO detector.

With the Flow Control flue gases are checked before the CO₂ set is activated. This is an extra security built in by Thermeta Service BV.

For a request for a quotation or additional information, please contact Thermeta Service BV on +31 (0)174-621270.