

Description of the BVP Albifos CO₂ collector

The **Albifos CO₂ collector** draws on 40 years of experience in the development, manufacture, maintenance and repair of devices for balancing ¹⁴C in the exhaust air from nuclear power plants, repositories and other nuclear facilities

The robust technology ensures a simple, no-frills design as well as the streamlined collection of CO₂ from the sample gas. A pump draws the sample gas from the heated sample gas line provided at the end of the exhaust gas cleaning system through a refrigeration dryer into the process cabinet at a flow rate of approx. 80 litres per hour.

A low partial flow is taken from the sample gas flow and fed in a defined fashion to the absorber via a semi-permeable membrane using a mass flow controller.

The condensate that accumulates can also be conveyed through the absorber tank by means of a pump for collecting the CO₂ components it contains.

The sample is analysed using certified laboratories with mass spectrometry, AMS.

Benefits of the BVP Albifos CO₂ collector

- Reliable foundation for determining the biogenic content in exhaust gas
- Automatic, representative sampling
- Proportional sampling in accordance with the volume flow directly from the exhaust gas
- Also suitable for systems with highly variable fuel input
- Cost-effective sampling thanks to a longer **measurement period of up to three months**
- Robust, double-walled protective PVC container
- No contact between the user and the absorber
- Sample gas and absorber are separated from each other by a membrane that is permeable to CO₂
- Eliminates the increased effort involved in collecting via molecular sieve or respirable lime
- Simpler processing in the laboratory without losses due to a reduced number of work steps
- The CO₂ in the condensate of the gas cooler can be added to the bulk sample
- No excessive electronics or programming
- Successful measurement campaigns in 2 waste incineration facilities with identified biogenic proportions between 52% and 62% in the exhaust gas
- Patents pending
- In-depth experience in exhaust gas sampling for ¹⁴C balancing

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