

# FS-1 MKII

Flue gas Sampler



For determination of the ratio of  
Fossile & Biogenic CO<sub>2</sub>



[www.alfakomp.com](http://www.alfakomp.com)

Gas Monitoring Technology

# FS-1 MKII Flue Gas Sampler

In FS-1 the flue gas is cooled down in a peltier gas cooler to 5 °C (default) and the condensed water is transported out of the system with a peristaltic pump. Gas transport is done with a diaphragm pump (that runs only when temperature in gas cooler is ok).

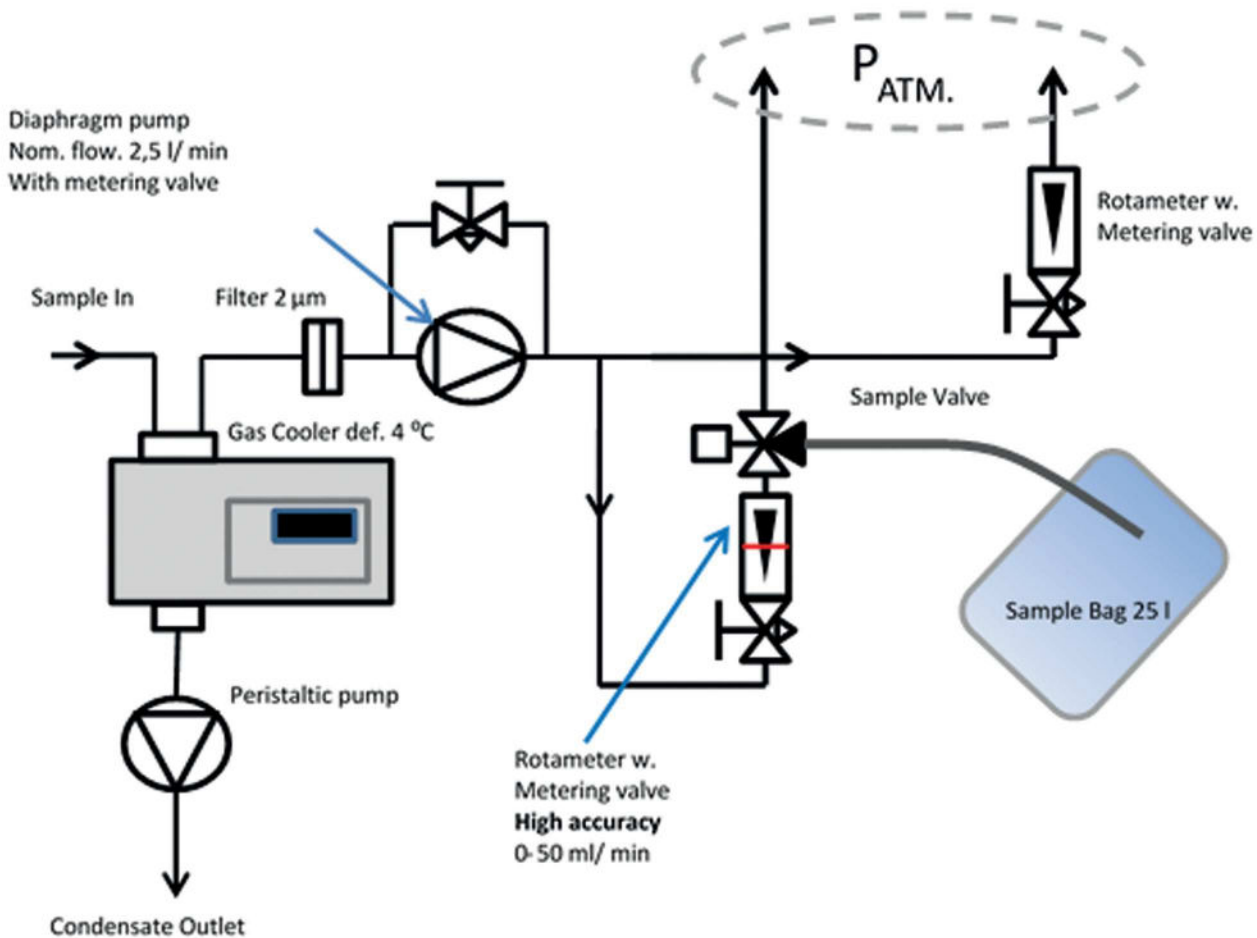
The flue gas is filtrated (2 µm) and then led through a bypass loop, from which an adjustable sample flow can be taken with the help of a solenoid valve.

The sample flow can be adjusted freely between 0-50 ml/ min (Air – other flows on request)

Sampling is controlled by an integrated PLC with display and push buttons for settings etc.

Automatic mode

The system takes an adjustable number of samples, at adjustable intervals. Sampling time is of course also adjustable.



# FS-1 MKII Flue gas sampler

Gas cooler	Type:	Peltier
	Temperature:	5° C, adjustable
	Heat exchanger:	Jetstream Duran Glass, PTFE
	Condensate removal	Peristaltic pump
Pump	Type:	Diaphragm pump Nominal flow 5 l/ min Adjustable with metering valve
Filter	PTFE, 2 micron	
Rotameter Bypass	0-2,5 l/ min. With metering valve	
Rotameter Sample	0-50 ml/ min @ 20 °C, 1013 mbar air. Flow is adjustable with metering valve High accuracy	
Sample valve	3 way, solenoid valve	
Gas connections	6 mm PVDF fittings	
Gas tubes	6/4 mm PTFE	
Enclosure	Wall mounted cabinet with ventilation fan 1000x600x400 mm (may vary)	
Electrical:	230 VAC, 250 W Remote sample control by potential free contact (NO)	
Options:	Gas sample probe, with heated ceramic filter Heated hose, any length. Sample bag wall holder/ protection (transparent acrylic) Sample bags (set of 5 pcs)	



Tedlar sample bags are available in sizes 25 and 5 l

Typically, sampling is made in 25 l bags, and then a part of the collected sample is transferred to a smaller 5 l bag to be sent to laboratory for analysis.



# More products from ALFAKOMP AB...

## Alfa CEMS - Extraktive Emission Monitoring Systems

Alfa CEMS is a complete emission monitoring concept, based on NDIR-analysers from Fuji Electric. We only use well proven components for sampling and gas conditioning to ensure a high quality analysis system with little maintenance.



**FE Fuji Electric**

Measuring ranges:

NO\* min. 0-200 ppm

SO<sub>2</sub> min. 0-200 ppm

CO min. 0-200 ppm

CO<sub>2</sub> 0-X %

O<sub>2</sub> 0-X %

\* NO<sub>x</sub> with NO<sub>2</sub> converter



## Portable emission systems

Portable flue gas monitoring systems for up to 9 gases. Integrated data logger and high quality sampling equipment. Certified acc. to EN 15267-4

**ALFAKOMP AB**

Box 4013

Svarvarvagen 3

S13204 Saltsjö-Boo

SWEDEN

Phone: 08 747 60 60

E-mail: [info@alfakomp.se](mailto:info@alfakomp.se)

WEB: [www.alfakomp.com](http://www.alfakomp.com)

