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# FOAM

// Flucon Oil Aeration Machine

## Generating Gas-In-Oil Mixtures for Aeration Testing

The accumulation of undissolved gas in lubricants and hydraulic oils can cause functional problems and damages in many technical applications. As a consequence of the general pursuit of maximum compactness and efficiency, operational fluids are exposed to growing strains,

and thus the risk of entrained gas getting into the medium is increased. Aerated oils can suffer dramatical loss of lubricity and gain unwanted compressibility, which can cause serious damage to power-transmitting components.

When researching and developing your fluids or fluid-carrying systems and components, you can now effectively address the aeration-related problems. FOAM (Flucon Oil Aeration Machine) is a compact mobile unit that can easily be integrated into your fluid circuit to produce consistent, homogeneous and

fine air-in-oil dispersions. Depending on your requirements, gas concentration (CG) values ranging from 0.5 to approximately 25.0 vol%\* can be set and achieved fully automatically.

## Components and Versions

### // PATENTED METHOD

After entering the desired CG setpoint, the integrated aeration module is activated and automatically aerates your oil to a constant level. Fluctuations resulting from natural degassing and the removal of the aerated oil by your application are detected by the integrated gas content measurement and automatically compensated by means of an intelligent aeration control.

### // OPERATING MODES

Each FOAM comes with an electronic box and a control panel on top, which allows you to operate the machine conveniently and intuitively in its stand-alone mode. For the external control and monitoring of your aeration test runs, you will also receive a comprehensive range of options from us: The device is equipped with analog interfaces for the transmission of all essential process parameters. By use of these the FOAM can also

be controlled from the safe zone.

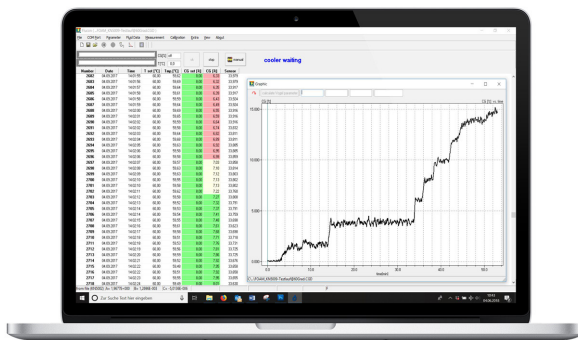
↳ Analog-Out: CG setpoint and CG measured, temperature setpoint and temperature measured;

→ Analog-In: CG setpoint, temperature setpoint

Furthermore the included PC software allows a detailed monitoring as well as an analysis of all the live data of your aeration testing via RS-232 (adaptable to USB).

### // VERSIONS

According to your specific type of application and depending on the flow rate of aerated oil needed, there are two types of oil aeration unit available: FOAM S for up to 50 l/min and FOAM XL-x for up to 60 l/min or even higher flow rates.



\* Maximum CG depends on oil viscosity.

**Video:**  
Find a video presentation of the FOAM S on our homepage.



Video-Link:  
[youtu.be/c9kyB40wtm0](https://youtu.be/c9kyB40wtm0)

### // FEATURES FOAM S

- ✓ continuous production of temperature-controlled micro-bubble mixtures
- ✓ includes 40 liter reservoir (requires 30 l min.)
- ✓ double-walled tank
- ✓ suitable for flow rates of up to 50 l/min
- ✓ comes with both heater (20 – 120°C) and air cooler
- ✓ integrated gas concentration measurement
- ✓ dimensions: L 850 mm x D 700 mm x H 1100 mm, weight: approx. 250 kg
- ✓ requires a pump for your oil supply
- ✓ choose setpoints for both gas concentration and oil temperature
- ✓ sight glass included
- ✓ patented technology

## Versions: FOAM S & FOAM XL-x

### // FOAM S

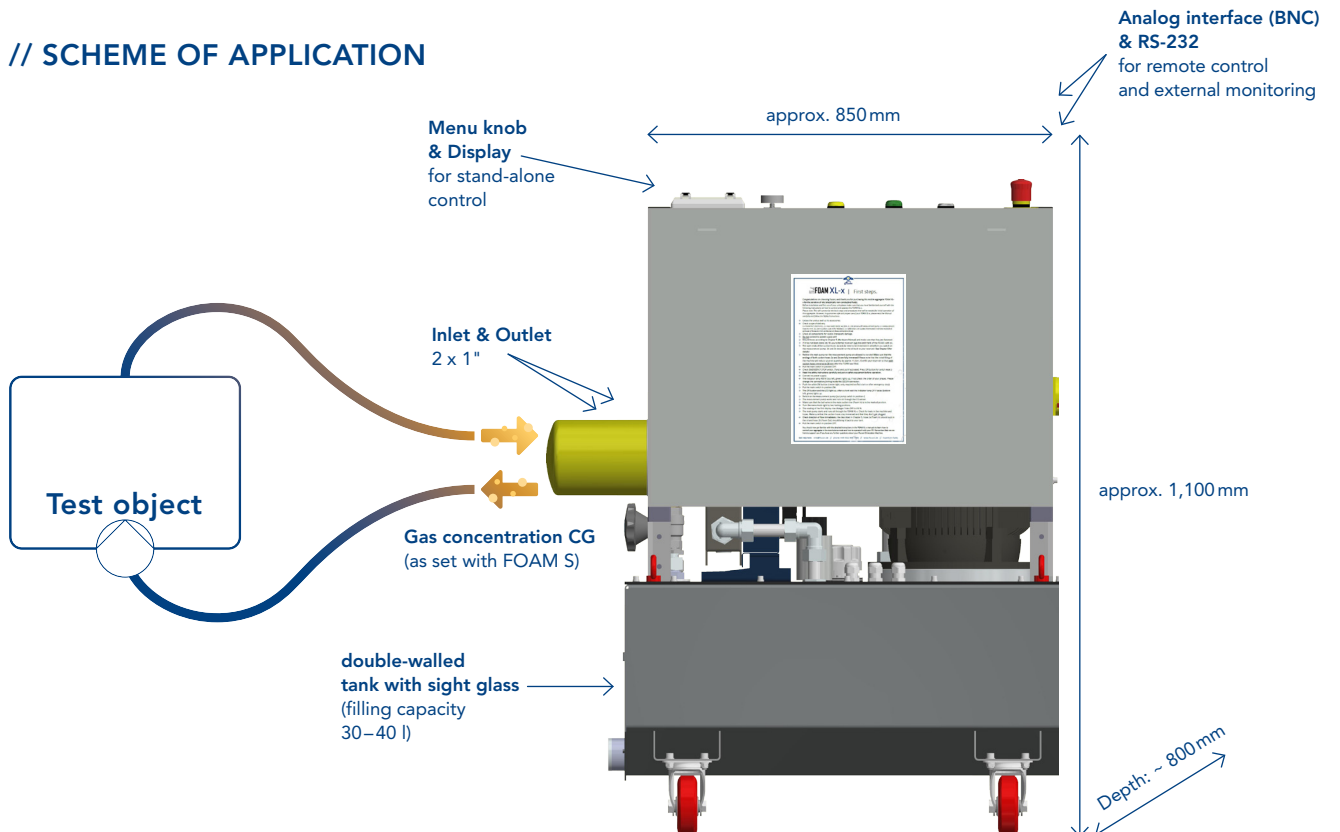
#### Oil Aeration and Temperature Control in Integrated Reservoir

The FOAM S comes with its own oil reservoir, in which the aeration of your oil is carried out. This unit is suitable for continuous flow rates of up to 50 liters per minute. Thanks to the integrated 4.5 kW heater, consistently aerated oils can be produced according to your gas concentration and temperature specifications.



Flucon Oil Aeration Machine FOAM S

### // SCHEME OF APPLICATION



**Video:**  
Follow this link to see a typical test bench application of our **FOAM XL-x**.



**Video-Link:**  
youtu.be/WbXau2Zt2f4

**// FEATURES FOAM XL-x**

- ✓ external aeration unit with hoses to place inside your reservoir
- ✓ continuous production of consistent and homogeneous air-in-oil dispersions (micro-bubble mixtures)
- ✓ patented method
- ✓ 3-phase motor, 400V
- ✓ suitable for higher flow rates of up to 60 l/min (please ask us about higher rates)
- ✓ precise control: external gas concentration measurement at your suction point (reliable CG measurement at atmospheric pressure)
- ✓ approx. measures: L 850 mm x D 700 mm x H 1100 mm, weight: approx. 200 kg
- ✓ includes analog interface (0 ... 10V) for external control
- ✓ RS-232 connection (flucon FOAM software included)

**// FOAM XL-x  
External Oil Aeration in Your Own Tank**

Unlike with FOAM S, aeration with FOAM XL-x takes place externally, in your own reservoir. This version is also suitable for larger oil requirements of up to 60 l/min. Still need more than that? Ask us about our customized FOAM units.



FOAM XL-x

**// SCHEME OF APPLICATION**

