

Helium bubble generator SAI™ Model 5

The generator is a compact and unique device for visualization of complex flow structures produced by SAGE Action Inc. It generates monodisperse neutrally buoyant, helium-filled bubbles of a diameter ranging from 0.8 to 4.5 mm. The bubbles follow complex air flow patterns without the risk of bubble burst or attachment to an object inserted into the flow. The system is widely applicable to all engineering problems where air flow is of interest.

SPECIFICATION

- number of bubbles generated:
300 – 400 bubbles/sec and head
- bubble diameter: 0.8 – 4.5 mm
- bubble life: 1 – 2 minutes
- minimal spatial resolution: 0.64 – 1.9 mm
- recommended bubble film solution:
SAI™ 1035 BFS



TYPICAL APPLICATIONS

- flow visualization in fluid dynamics, experimental research into gaseous flow
- bubbles are suitable as seeding/tracer particles for optical measuring methods such as PIV, PTV, LDA particularly for observation of large areas
- internal and external aerodynamics, studies of flow around bodies in wind tunnels
- research on heating, ventilation and air-conditioning in rooms, assessment of indoor climate of vehicles
- investigation of air/gas discharge flow from ventilation outlets, tubes and nozzles
- studies on gas jet mixing
- particle tracking, streamlines and vortex structures

Ing. Jan Jedelský, Ph.D.

tel: +420 541 143 266 | e-mail: jedelsky@fme.vutbr.cz

Department of Thermodynamics and Environmental Engineering

Faculty of Mechanical Engineering, Brno University of Technology

Technická 2896/2, Brno 616 69, Czech Republic

tel: +420 541 143 280 | e-mail: otpp@fme.vutbr.cz | www.eu.fme.vutbr.cz

