

Hot Air Gas Blowers

Gas Blowers are used for heating sample in diffraction experiments. They come in 2 sizes:

8mm Gas Blower (DGB0001) can be used on:

- A 4 circle diffractometer with a spherical sample of up to 3mm in diameter
- A powder diffractometer with thin particle samples enclosed inside a Lindemann type tube of up to 2mm in diameter and 12mm in length

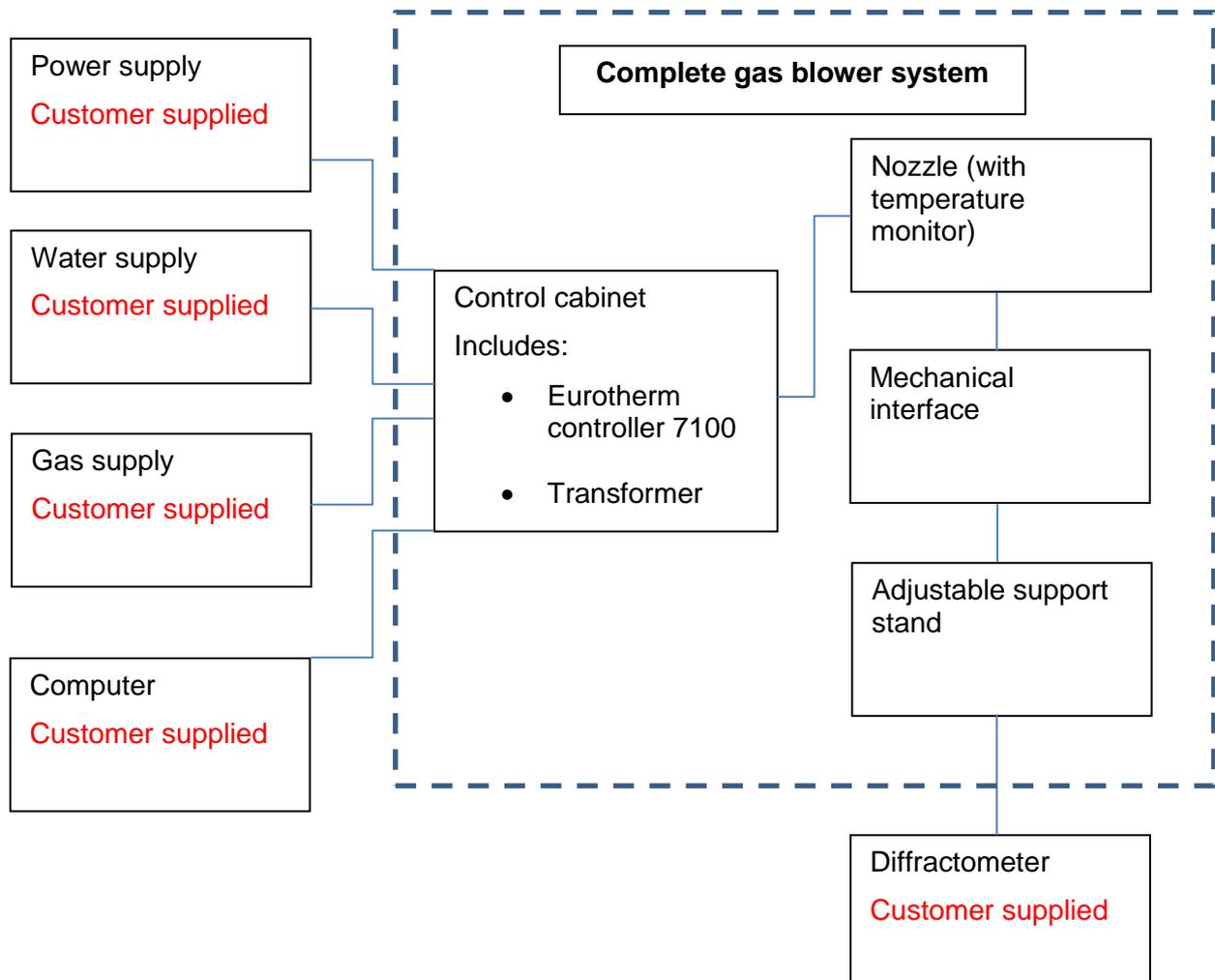
The sample can be set up to a maximum of 5mm from the gas blower nozzle

5mm Gas Blower (DGB0002) can be used on:

- A 4 circle diffractometer with a spherical sample of up to 0.3mm in diameter

The sample can be set up to a maximum of 3.5mm from the gas blower nozzle

System



System Ordering Codes

Code	Description	Comments
DGB0001	Hot air gas blower, 8mm dia	Complete gas blower system
DGB0002	Hot air gas blower, 5mm dia	Complete gas blower system
DGB0003	Adjustable support stand for 5mm hot air gas blower	Capable of ± 80 mm x axis, ± 2 mm y axis, and ± 2 mm z axis movement
DGB0005	Adjustable support stand for 8mm hot air gas blower	Capable of ± 80 mm x axis, ± 2 mm y axis, and ± 2 mm z axis movement This automatically includes a mechanical interface
DGB0006	Hot air gas blower nozzle, 5mm dia	Nozzle only replacement part
DGB0007	Hot air gas blower nozzle, 8mm dia	Nozzle only replacement part
DGB0008	Hot air gas blower control unit for 8mm & 5mm	Including cooling pipes, gas pipes and thermocouple

Key specifications

- Lifetime: estimated at 1000 hours of continuous use at 800°C
- Temperature range: up to 1000°C (the 8mm version is more suited to this. Gas mix and flow rate need optimised to reach this – using air, argon or oxygen at 500 L/hr should permit it. **Do not use nitrogen above 500°C**)
- Temperature precision: $\pm 1^\circ\text{C}$ (a temperature and flow rate controller are used to attain this)
- Temperature stability: $\pm 0.5^\circ\text{C}$ (not guaranteed below 250°C)
- Temperature ramp rate: maximum 10°C/min up to 400°C, 5°C/min from 400°C to 1000°C
- Gas flow rate: 600l/hr max
- Fuses: 2x slow blow 6.3A
- Nozzle details (5mm diameter version): height = 80mm, diameter = 50mm, weight = 0.68kg
- Nozzle details (8mm diameter version): height = 200mm, diameter = 100mm, weight = 3.0kg
- All cabling/tubing is supplied as part of the Control cabinet