IN SCIENCE TOGETHER

ISG Fume Cupboard, Ductless, Polypropylene

SPECIFICATION
USER GUIDE

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Getting Started

Symbols

The following symbols appear on equipment labels or in this guide.

⚠️ Disregarding this information could endanger the personal safety of the user and may result in serious injury.

CE The ductless fume hood meets all requirements of relevant European Union directives.

General Warnings

- This guide must be read thoroughly and carefully, and the operator must be familiar with its contents, especially the safety requirements, before the system is operated.
- After the unit is unpacked, it must be checked to verify that no damage occurred during shipment. If damage is detected, contact ISG; see the Warranty and Service page of this guide for contact information.
- Electrical installation must comply with applicable IEC, CEC, and NEC requirements.
- When fuses are inspected, the unit must be disconnected from the electrical outlet.
- Repairs or adjustments to the unit may be performed only by a qualified technician authorised by ISG
- The warranty is void if any of the warnings or cautions contained in this guide are disregarded

Description

ISG's Polypropylene Ductless Fume Hoods provide an ultimate protective work environment for lab staff working with acids and harsh chemicals. The electrical and mechanical components are manufactured by leading global companies, such as EBM Germany and AAF USA. The products comply with relevant international standards.
ISG's Polypropylene Ductless Fume Hoods are customised to the requirements of each client.

The user should keep the sash as low as possible and the fan speed as low as possible to enable the chemicals enough dwell time in the carbon filters. The user can experiment with the fan speed (the alarm will sound if the air flow is too low) to find the optimum setting.

Features

- Welded white polypropylene structure
- Built-in sealed polypropylene worktop
- Easily dissembled back wall
- Tempered glass sliding front window
- Monitor indicating fan's total working time, for tracking and filter replacement purposes
- Top quality, quiet fan manufactured by EBM Germany
- Eco-friendly, cost-effective 600-800 LUX LED lighting separate from the fuming hall.
- Wind speed at 0.6+0.1 m/s, 120±FPM
- Easy filter replacement
- Top filtration unit including carbon filter
- User-friendly digital control system including fan speed control, and displays for air pressure, signal light, operation time and alarms.

Active Filter(s)

Control Panel

Tempered Glass Window
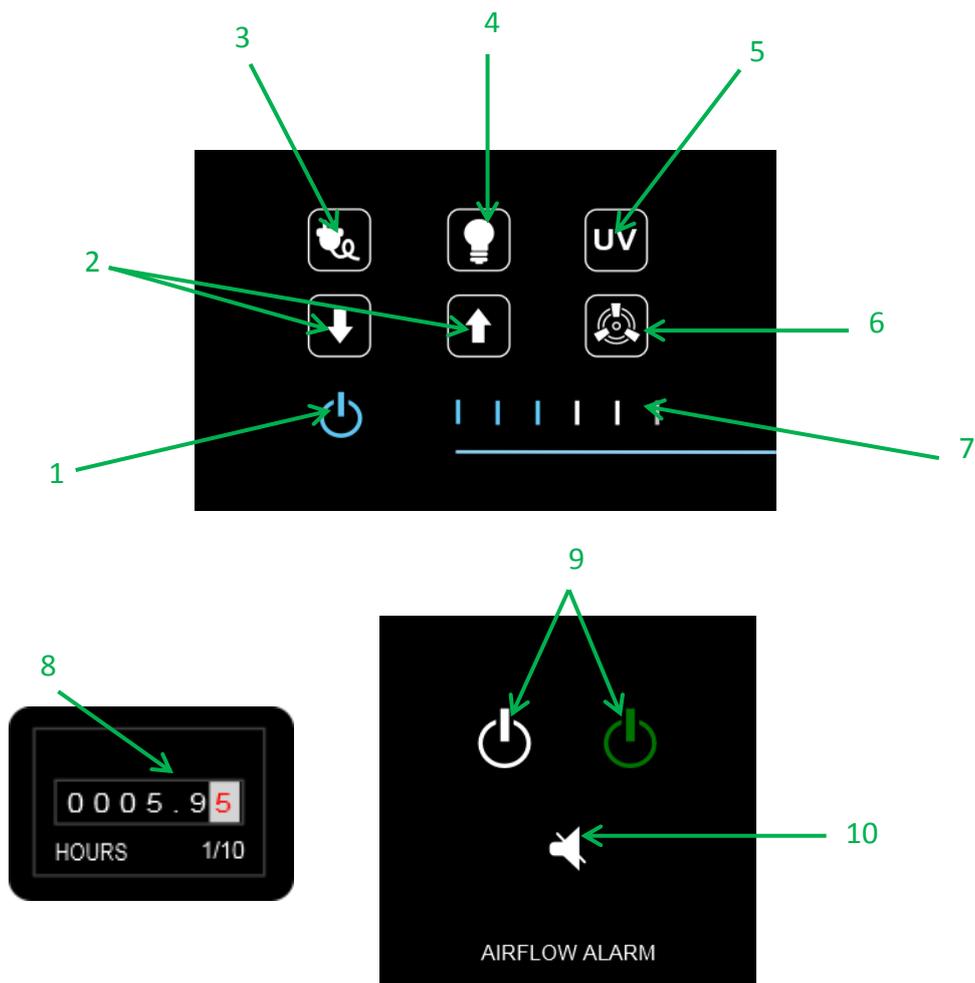
LED Lighting

Electrical Sockets

Managing The Controls

The control panel at the front of the top unit of the Polypropylene Ductless Fume Hood displays operation data and holds keys that allow the user to control the different functions:

1. Power On/Off (It is recommended to switch on the unit five or ten minutes prior to any activity)
2. Fan speed Up/Down
3. Electrical Sockets On/Off
4. LED Lighting On/Off
5. UV Lighting On/Off (not supplied as standard)
6. Fan On/Off
7. Fan Speed Indicator
8. Hourly Usage Clock
9. Air Flow Alarm Indicator Lights
10. Air Flow Alarm On/Off

Specification

Outer Dimensions (W x D x H):	900 x 750 x 1223mm
Workspace (W x D x H):	885 x 610 x 695 mm
Production / Test Standards:	EN-14175 CE ASHRAE 110-199 ISO-9001:2008
Air Velocity:	0.5±0.1m/s, 120±20 FP
Cabinet Material:	Welded white polypropylene structure with built-in sealed polypropylene worktop
Noise Level:	<52dB (Tested 20 cm from the work table, 1.2m above ground)
Power Input:	220V 50/60 Hz, Single phase
Illumination:	>600-800 LUX, Eco-friendly LED lighting
Filters:	Pre-filter & carbon are standard. Acid, & HEPA available on request

Accessories

Product Code	Description
153-901	Stand for 900mm Fume Hood
153-902	Pre-filter for ductless fume hood size 900mm
153-903	Carbon filter for ductless fume hood size 900mm
153-904	Polypropylene based storage stand
153-905	HEPA Filter For Ductless Fume Hood Size 900mm
153-906	Acid Filter For Ductless Fume Hood Size 900mm

Commissioning

1. Raise sash to the recommended maximum working height as indicated by yellow markers

2. Adjust fan speed until an average face velocity of 0.5m/s (±0.1m/s)

3. Place sticker on fan speed panel to indicate the required speed to meet the minimum air velocity

Changing The Filters

1. Open front of base cabinet and remove screens from access panel, and then remove the panel.

2. Loosen screens and remove filter clamp.

3. Remove old filter(s) and replace with new filters.

4. Replace access panel and secure with screws.

Troubleshooting

Q: I have plugged the unit in but there is no power to the control panel
A: check the RCD switch is on

Q: the air flow alarm keeps sounding
A: One of the following is possible:
a)   The fan speed needs increasing
b)   The sash needs lowering
c)   The main filter is full (saturated/clogged) and needs replacing
d)   The pre-filter is full (blocked) and needs replacing

Q: The castors won't run smoothly
A: turn the knurled adjuster until it is raised fully

Q: the wheels won't lock
A: turn the knurled adjuster until it is lowered fully

Q: the sash doesn't raise/lower smoothly
A: check the sash cable is positioned on the pulleys (can slip off in transit)

Q: The low airflow alarm is sounding
A: press the alarm mute button (picture). If it continues to sound then refer to point above "the air flow alarm keeps sounding"

Q: I am using a chemical and I there is a noticeable smell coming through the filter
A: one of the following is possible
a)   The filter is saturated/full and needs replacing
b)   The filter type is incorrect for the chemicals being used (we offer 7 different filter types)
c)   The fan speed is too high thus not allowing sufficient dwell time in the filter

Cleaning & Maintenance

Warnings

⚠️ Shut down the system and disconnect the power cable before performing any maintenance procedures, to avoid electric shock. Replace burnt fuses with fuses of the same type and rating, to avoid risk of fire.

- After completion of any procedure, or if the worktop becomes soiled, remove all items from the worktop and wipe it with a dedicated lint-free polyester or polyester cellulose cloth, available at clean room suppliers. Dampen the cloth with 70% isopropyl or ethanol alcohol or any solvent recommended by the suppliers for this purpose. The panels and base of the unit may also be wiped with the cloth.
- Once a month, visually inspect the pre-filter at the top of the unit. If the pre-filter appears soiled, lift it off the top of the unit and take it out of the clean environment to shake it until it is dust-free. If the unit is located in a clean room, place the pre-filter in a dedicated receptacle while moving it within the room. If the pre-filter appears soiled and worn after shaking, replace it with a new pre-filter purchased from a clean room supplier.
- Once a year, the airstream speed should be tested by a certified clean room technician, and the filter should be replaced.
- Before transporting or storing the unit, unplug the electric cord and fasten it so it does not bounce against any surfaces and remove the unit from the base. Keep the unit in an upright position and wrap it securely in protective covering to prevent damage.

Service

ISG extends a full 12-month warranty on all electric and mechanical parts of the Polypropylene Ductless Fume Hood.

For information about servicing and purchasing spare parts, please contact:

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