



sartorius
mechatronics

Installation, Service and Operating Instructions

Sartorius SWC Safety Weighing Cabinets

Models SWC900, 900T, 1200 and 1200T



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Intended Use

The Sartorius SWC safety weighing cabinet is designed to provide a safe weighing and small scale sample handling environment protecting users from exposure to airborne contaminants known to be present during these operations.

The system has been tested in accordance to ISPE guidelines (Institute of Pharmaceutical Engineers) and has a recognised control performance for the handling of Active or Potent Pharmaceutical compounds.

Standard features on this range of instruments include:

- Recessed Granite Base (Black)
- Independent Fan Extraction System
- Safe Change Bag-out Filter
- Dual Sensor Alarm
- Airflow Datalogging function
- Waste Disposal Chute
- Lamp and 4 way Power Distribution Block
- Air Flow Smoke Test Kit
- Anti Static Decontamination Wipes

Warning and Safety Instruction

Read this instruction manual thoroughly and train all operators before attempting to place this unit into service. It is the customer's responsibility to understand the proper function and operational characteristics of this apparatus. Awareness of the stated cautions and warnings, and compliance within recommended operating procedures – together with maintenance requirements – are important for safe and satisfactory operation.

Customer satisfaction and safety are important to us. A complete understanding of this unit is necessary to ensure safe operation. All units must be certified to be operating within the requirements set by the customer's Health and Safety Department. The alarm should be calibrated and airflow set to meet your Health & Safety Department requirements.

If you have any questions about installations of this product, please call technical services for assistance.



Warning: This product is not intended for, nor can it be used as, a patient connected device.

Warning: As a routine laboratory precaution, always wear safety glasses, coat and gloves when operating apparatus.

Warning: To prevent electrical shock, always unplug unit prior to installation. To reduce the risk of electrical shock, do not expose to water or rain.

Operating Conditions: Temp 0-40°C
Humidity 20-75 %RH

Sartorius Safety Weighing Cabinets SWC cannot be used for powdered substances that are classified as carcinogenic, mutagenic and toxic to reproduction according to Guideline 67/548/EEC*. Safety Weighing Cabinets can also not be used for cytostatics as well as unguents containing arsenic and tar. If these substances are in liquid form, then the build-up of vapors and aerosols should be prevented. As with other especially hazardous substances, a risk assessment is required in this regard with the selection of appropriate protection measures. The Safety Weighing Cabinet cannot be used for biological and genetically modified organisms due to the development of substance-containing dusts, aerosols and vapors. In all other cases, a risk assessment must also be carried out.

Sartorius AG is not liable for the improper use of Sartorius Safety Weighing Cabinets SWC.

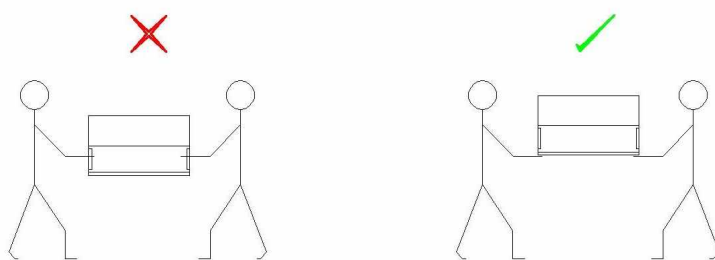


Unpacking

This product is carefully packed and thoroughly inspected before leaving the factory.

After unpacking the safety weighing cabinet, check it immediately for any visible damage as a result of rough handling during shipment. It is a good idea to save the box and all parts of the packaging until you have successfully installed the weighing cabinet. Only the original packaging provides the best protection for shipment. If you need to return the cabinet to the manufacturer, be sure to unplug all connected cables before packing it to prevent damage.

LIFT FROM BASE ONLY !



WEIGHT 30 - 50 Kgs

General Operating Principles

Description of the Safety Weighing Cabinet

The SWC Series of Safety Weighing Cabinets are designed to protect the analyst from exposure to airborne contaminants during the weighing process. The design and use of this system is based around the following principles.

- Safety Engineering Controls
- Functional Design
- Ergonomic Design
- Good Operational Practices

PPE (Personal Protective Equipment) such as face masks will provide an analyst with a good degree of respiratory protection. The level of protection however is based on the correct use at all times and also on the analyst remembering to use the mask at all times. The aim of good **Safety Engineering Controls** is to engineer out the use of PPE and wherever possible to eliminate the human error factor and provide a guaranteed level of safety.

A well design Safety Weighing Cabinet will vent any toxic contaminants via an approved filtration system and then either into a house exhaust system to atmosphere, or re-circulate back into the laboratory to save on energy. The user is protected by the cabinet's ability to maintain a constant and controlled

flow of air away from the user and toward a dedicated filtration system. An airflow alarm system provides warning of air flow failure both visual and audible, essentially providing a fail safe system. A recessed base area provides protection from spillage. The assembled system is a single complete enclosure allowing access from one opening only and being designed as a specific workstation will identify a dedicated area for potentially hazardous weighing operations. The system design is portable allowing the enclosure to be moved from one location to another as the laboratory functions change. The air handling requirements of the SWC systems are relatively low (50-90Ltrs /sec) and of Constant Volume requirements meaning that they are simple to integrate into existing extract systems.

The Functional Design of the SWC series ensures that sensitive balances can operate effectively. Air flow is designed to be a smooth, horizontal laminar flow providing effective containment at low velocities (0.3-0.45m/s). The Exhaust plenum is removable and designed so that it can be orientated upwards or downwards which helps with Installation requirements. The analyst can clean the exhaust plenum area easily without any additional protection. Extract and filtration is provided by a separate fan filtration system which remains remote in order to minimise vibration and to isolate the

contaminated filter. The hepa filtration system is a safe change bag-out system which provides effective filtration to recognised standards for up to 4 years. Airfoils located on the access area are moulded in order to provide good containment and easy cleaning. A base airfoil will act as a 'clean area' arm rest and static discharge point, as well as an effective location for flow sensors and assisting air flow performance.

Ergonomic Design is an important function as the analyst naturally needs to lean towards the balance in order to be able to handle such small quantities of drug. For this reason the SWC systems have sloping fronts that allow the operator to work comfortably. The construction of the system from cast acrylic also provides good optical clarity.

Good Operational Practises ensure that the SWC systems are used effectively and to their maximum potential. Disposal chutes allow contaminated material to be disposed of without first leaving the cabinet. The alarm system ensures that the system is not used when the equipment access door is open. Performance testing of these cabinets has been carried out using surrogate sampling techniques that test the systems control performance for the actual application in which they will be used.

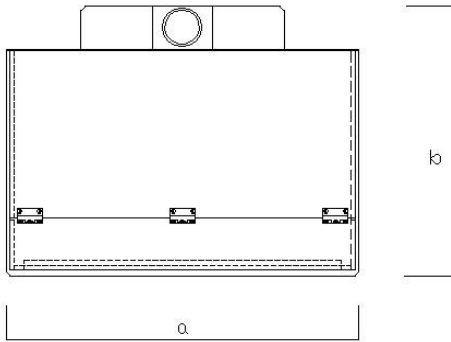
General Installation Procedures

1. Remove the cabinet from the packing case ensuring to lift from the base and not the sides, inspect for any damage, scratches or breakage, which may have occurred in transit. If any problems or concerns are noted, please contact the shipping company immediately.
2. Clean, and if necessary, decontaminate the surface on which the cabinet will be installed. Every effort should be made to ensure that the area is as free of potential chemical, physical, or biological contamination as possible.
3. Ensure that the surface on which the cabinet is to be installed is well lit, level, smooth, and free from vibration. The front of the cabinet should be as close to the front of the balance table as is practical.
4. A comfortable chair with an upright back and adjustable height should be designated as part of the workstation area. Seat height should be adjusted so that lower arms are approximately at right angles (90 degrees) to upper arms when in the working position.
5. The cabinet should not be placed in an area of strong room air currents or cross-drafts that are caused by ventilation systems or from an open window or corridor. These currents should be eliminated such that the airflow entering the workstation is not disturbed. Limiting elbows and bends and using the minimum duct lengths will result in more efficient use of your exhaust system. If the cabinet is to be connected directly to the in-house exhaust system, an adjustable damper (or gate valve) must be installed in the system in order to control the airflow to provide the required face velocity (0.3-0.45m/s). This is especially important in balancing a system that has more than one cabinet installed in series.
6. Care must be taken when vapours, gases and particulate are being exhausted from a cabinet that is connected in series with ducts to the exhaust of another cabinet to ensure that the gases/fumes are chemically compatible.
7. If using a fan/filter housing, follow the instruction manual to ensure proper operation in conjunction with your cabinet.
8. If you have any questions about installations of this product, call for technical assistance.

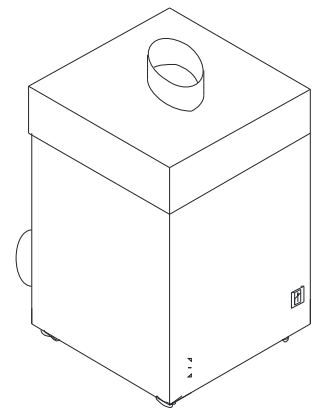
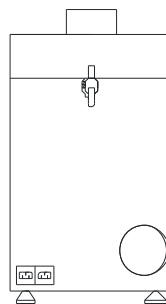
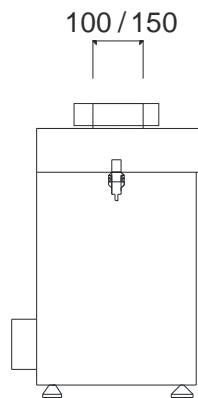
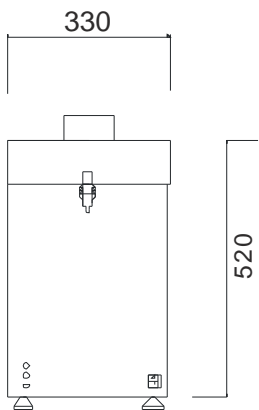
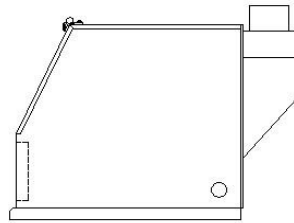
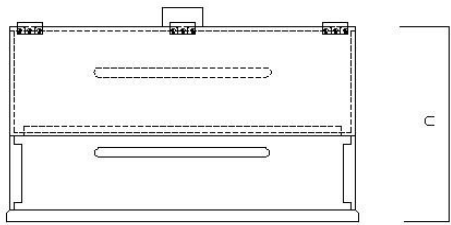
Air Handling Requirements

	m ³ /sec @ 0.35m/s Face Velocity	m ³ /sec @0.35m/s Face Velocity
Model	Direct Connection (No Fan/Filter)	Connection Via Fan Filter
SWC900	0.057	0.062
SWC900T	0.066	0.072
SWC1200	0.076	0.083
SWC1200T	0.089	0.095

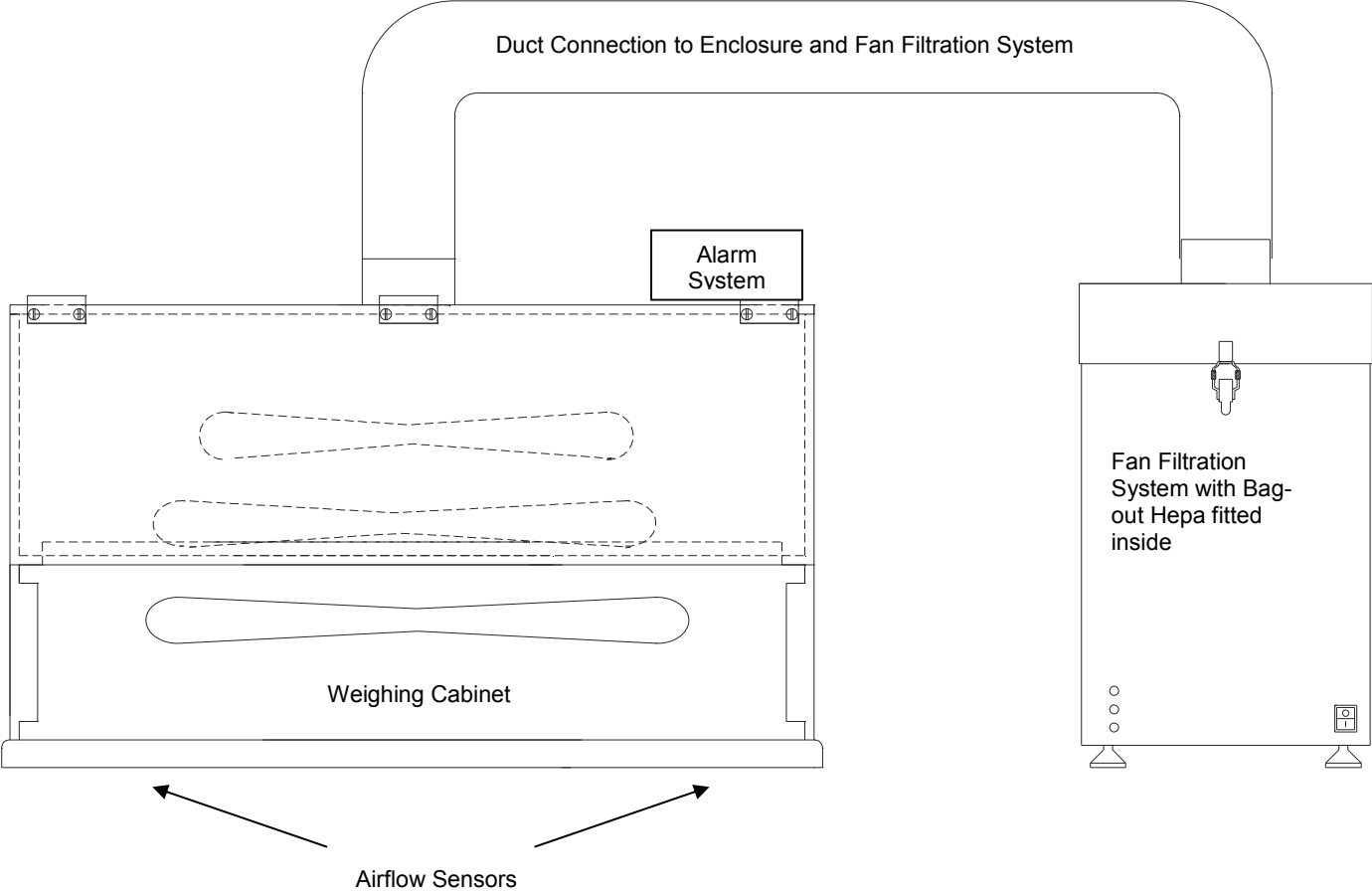
Cabinet and Fan Unit Dimensions (mm)



Unit	Width (a)	Depth (b)	Height (c)
SWC900	890	750	510
SWC1200	1230	750	510
SWC900T	890	750	770
SWC1200T	1230	750	770



System Assembly



Fan Filtration System

The SWC510 and SWC515 powder handling fan units are specifically designed to provide controlled extract and filtration for the weighing cabinet systems.

The fan unit consists of a box-section housing with a centrifugal fan housed in the base. Air is drawn through the top inlet and out through a 100mm spigot on the side, via a safe-change HEPA (High Efficiency Particulate Arrestor) filter. The airflow speed is adjustable from 0.01 to 0.1 m³/s. Once set, the speed control circuit will maintain the required velocity.

The fan unit itself is designed to be located either next to, or under the cabinet system for which it is providing airflow. The fan unit can be mounted on its side, if required, but not in an inverted position. When locating the fan unit, ensure that access for yearly maintenance is easy as filter changes will have to be made.



System Specifications

Model:	SWC510/515
Volume Flow	340m ³ /Hr =95 ltr/sec
Dimensions	Height: 520mm
	Depth: 375mm
	Width: 375mm
Weight:	20kg (with Filter)
Fan Type:	Centrifugal Fan
Output	0.36KW (360 Watts)
Voltage, Europe	230V /1PH/50HZ
Current	2Amp Max Load
Noise Level	49dBA-63dBA



Movement or relocation of the fan unit must be carried out under safety supervision due to manual handling issues

Speed Adjustment



Speed Control Dial:

Speed adjustment

Anti Clockwise = Increase Flow

Clockwise = Decrease Flow

Pressure Gauge



Green Light = Filter Good

Red Light = Filter Full

Fan Filtration System

Installation of HEPA Filter into New and Unused fan filtration systems.

The Bag-out HEPA filter is designed to provide a safe change mechanism when the filter has become loaded. Correct Installation will ensure that the replacement of filters is safe and easy.

Before commencing with an installation or filter change:

- Ensure the client has prepared the installation area as safe for entry or advised you of any residual risks.
- Ensure the fan filtration system and ducting is new and unused. If in doubt, follow the steps from page 13.

First Installation of HEPA Filter into New and Unused fan filtration systems

PPE required for this Section:

None required during installation of new equipment in a clean and safe area

1. Using good manual handling techniques remove the filter from its packaging taking care not to touch the filter media, place the filter into the fan filtration system with the filter bag-out sleeve facing upwards.

2. Pull the filter sleeve up through the fan filtration system inlet ensuring that all the material is pulled through and that none of the sleeve is gathering around the opening (this can restrict airflow and produce extra noise in operation)

3. Slide the clean vent ducting over the sleeve and filter housing inlet. Once the ducting is in place over the sleeve there should be excess sleeve material showing which must be wrapped around the outside of the duct. Around this sleeve material and onto the fan inlet spigot, fasten a jubilee clip to secure the ducting and sleeve in place. (This arrangement creates excess sleeve. When the filter is changed, it will become part of the safety controls to minimize exposure).

4. Tighten the Jubilee clip and fold the excess material over the clip to cover it.



Cleaning Procedure

Cleaning

The cabinet should be kept clean at all times, proper use will mean that any spillages or contamination is disposed of in a safe manner and that the cabinet is left clean for the next analyst to use without the risk of cross contamination.

The base area of the cabinet is granite which has good resistance to cleaning chemicals and being black in colour will highlight the majority of (white) drug compounds.

Cleaning of the cabinet panels should be with weak or non solvent based solutions such as: Isopropanol, Ethanol, or soapy water.

Non Solvent Decontamination Wipes are also available as an accessory (SWC-DECONWIPE).



CAUTION: Do not use acetone or other strong solvents to clean the cabinet.

Waste Chute Disposal Procedure



Safe Removal of Waste Disposal Bag



Wear double gloves for this procedure

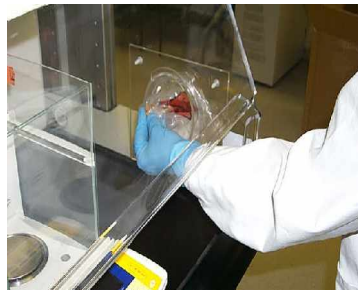
Prior to removal have ready inside of the enclosure:

- Replacement waste bag
- Elastic band to secure to disposal chute



Safe Change Procedure:

- Remove and seal the internal bag.
- Push the sealed bag into the outer bag.



- Attach a new waste bag to the internal disposal chute section so that the bag faces into the enclosure.



- Remove outer gloves and place inside the enclosure
- Remove the external bag and seal.
- Attach a new waste bag and fix with elastic band
- Dispose of used waste bag.
- Push the new internal bag through to the disposal chute and dispose of contaminated outer gloves.



Maintenance Program

Every 6 Months

Visual Inspection – Check

- Physical damage to Panels
- Physical damage to base
- Alarm connection points
- Ductwork damage
- Secure duct connection to Cabinet and Fan Filtration system
- Base airfoil check
- Door Operation
- Cable access plates
- Plenum Fasteners on back.
- Power Block Assembly
- Disposal chute fixing.

Operational Inspection – Check

- Alarm Operation
- Smoke test (airflow check)
- Airflow velocity Test
- Fan Filter Pressure gauge check

Every 12 Months

Same tests protocol as 6 months plus:

- Alarm Test and Calibration
- Filter Integrity Test (DOP Test)

Safe Change Procedure for Bag-out Hepa Filters

Filter replacement will be required when:

- An acceptable face velocity is no longer attainable
- The Filter Integrity has become compromised
- After 4 years of use

Precautions:



Dynamic Risk Assessment

Before entering an area to carry out a HEPA filter change ensure the client has made you aware of any health and safety risks in the area and, or conduct a risk assessment to ensure the safety controls stated in this procedure will remain adequate.

You may be required to follow a client's safe change procedure. If this is the case, ensure training is provided.

When removing a contaminated HEPA filter the operator must wear the following PPE (Personal Protective Equipment) as a minimum.

- Double Gloves (Nitrile or Vinyl)
- Disposable coverall with overshoes (i.e. Tyvek®) – or higher level if customer dictates
- P3 filtered air Respirator

Keep tools and equipment in bags to minimize contamination.

Prior to starting Change out procedure:

- Ensure that the fan filtration has been running for at least 2 hours since last being used for extracting a potentially contaminated atmosphere from a cabinet system.
- Gently tap on the flexible ducting along its length just prior to the fan housing. This will ensure any loose residual powders attached to duct and at the immediate connection point are drawn into the filter. Leave to run for a further 10 minutes.

Filter Removal and Replacement Procedure



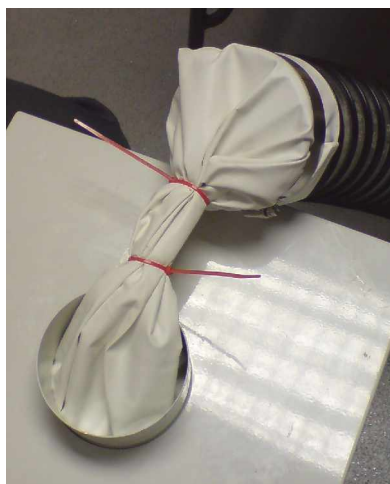
NOTE: Full PPE to be worn, in case of system failure during change procedure.

1. With the fan unit still running, slightly loosen the jubilee clip to allow the flexible duct to pull upward extending out the sleeve. **DO NOT** allow the sleeve to come away from the duct as this may result in escape of contaminants. Allow the sleeve to close and collapse by the vacuum produced by the fan extract.



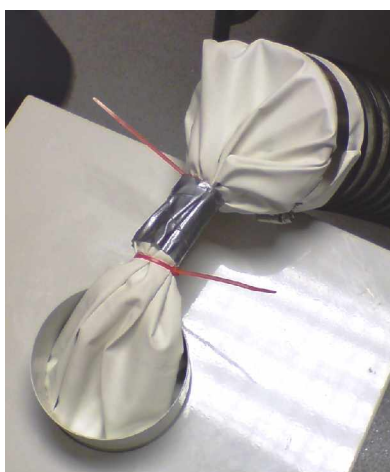
NOTE: The inner of the extended sleeve should be significantly less contaminated than the duct and inner of the filter bag because it has very limited exposure to the contaminants passing through the duct into the filter bag.

2. Secure the bottom first, and then the top section of the sleeve with two cable ties. Allow at least 100mm space between the ties.

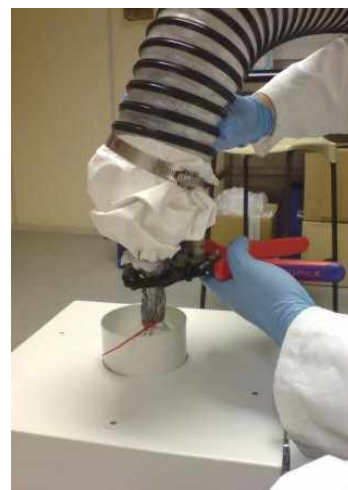


3. Turn off the fan unit.

Tape securely between the 2 cable ties with heavy-duty duct tape.



Cut the taped bag sleeve at the mid point with the ratchet cutter.



Wipe the ratchet cutter and handle with a cleaning wipe to remove any contamination

Dispose of the wipe in a hazardous waste bag

Carefully place the duct with sealed filter sleeve cover to one side in a place where it will not be disturbed.



The fan unit lid can now be removed leaving the sealed filter assembly standing in the fan house cavity. The filter is now safe to remove.

- Wipe the top of the filter housing lid with a cleaning wipe and place to one side
- Using the bag the new filter is supplied in lift the old filter out and zip tie the bag shut (the new filter should be put to one side).
- Place into a second hazard bag along with your top pair of gloves and seal with a zip tie.
- Place the double-bagged filter in the box the new filter came in, seal the box and label with the contents ready for disposal.

4. Place the new HEPA filter into the fan unit, replace clean lid, pull the sleeve material through and open out around the entrance to the filter.

Turn on the fan again ensuring that the bag-out sleeve is secure and not being drawn in by the filter.

Put a second pair of gloves on

Position the flexible duct so the end of the duct is above the centre of the new filter

Loosen the jubilee clip and using a hazardous waste bag, ease the sleeve and jubilee clip from the duct and seal. Place to one side.



NOTE: This is the highest risk part of the filter change because the duct is open potentially exposing any hazardous contaminants inside.

Keeping the duct over the filter opening, slide the vent ducting over the sleeve and filter housing inlet. Once the ducting is in place over the sleeve there should be excess sleeve material showing which must be wrapped around the outside of the duct.



Around this sleeve material and onto the fan inlet spigot, fasten a jubilee clip with a flat head screwdriver to secure the ducting and sleeve in place. Ensure the jubilee clip is secure

Wipe the screwdriver with a clean wipe, dispose of the wipe in a hazardous waste bag.



The filter change is complete.

Equipment Clean up after Filter Change

Prepare a hazardous waste bag for wipes and gloves.

Place bagged waste sleeve in another hazardous waste bag, seal and label with contents.

Dispose of second pair of gloves (into hazardous waste bag) and replace with clean gloves

Wipe the outside of the duct for 1m from the connection point with a cleaning wipe. Dispose of wipe in hazardous waste bag.

Wipe the top and sides of the filter housing with a cleaning wipe.

Dispose of wipe in hazardous waste bag.

Wipe any other tools used with a cleaning wipe. Dispose of wipe in hazardous waste bag.

PPE Removal

To remove a coverall suit or over coat:

Aseptically remove coverall suit.

Carefully work suit off shoulders without touching under clothes.

If necessary, reach behind and with fingertips and pull coverall from middle of back.

Pull arms from the inside out removing outer second pair of gloves as well.

Once at waist level and touching only the inside of the suit, work the suit to your ankles by rolling it down.

At this point, step out of the suit and remove coverall boots/overshoes.

Roll the suit up keeping the contaminated side inwards.

Place in a hazardous waste bag twice, seal and label.

Finally, remove re-useable respirator full-face mask and clean as per maintenance procedure.

Remove final pair of gloves and dispose in hazardous waste bag.

Final Waste Removal

Take additional hazardous waste bags, seal then place into a second hazardous waste bag, seal and label with contents.

Ensure all hazardous waste is collected, or made available for disposal.

Thoroughly wash hands, wrists and face.

Flow Alarm

Overview and User Guide



The Sartorius airflow alarm monitors the airflow condition entering the Safety Cabinet and indicates whether there is a safe airflow condition for the operator to use the system. The cabinet must not be used without the alarm in operation, or if the alarm is displaying an airflow fault condition.

When turned on, the display shows a unique serial number for 2 seconds. This is a reference number that can be used to identify the installation.

The display will then show *“Stabilising flow sensors, Please wait 20s”*. The unit then checks both the left- and right-hand sensors in turn and displays their status (i.e., *LEFT OK*, etc). If a fault is detected, then the display will show the sensor name and the word *“faulty”* until the fault is cleared.

The unit continues its test on its internal memory space. If the data storage space used is > 80%, a warning message will be displayed showing *“> 80% full”*. When the internal memory is totally full, a message warning *“Now Full”* will be displayed.

After the above test and initialization have been successfully completed, the unit will then enter its main monitoring routine.

During normal operating conditions the alarm display will show *“AIRFLOW SAFE”* if the airflow level is lower than the recommended level, the display will read *“AIRFLOW FAIL”* and an audible alarm will sound.

The flow alarm measures the level of airflow entering the cabinet. The alarm has two flow sensors located under the airfoil, one on either side of the unit. If the airflow speed drops below 0.3m/s the alarm will

indicate this on the display and a red light will show which sensor has a low flow condition. If the sensors detect a low flow condition for more than 20 seconds, then an audible alarm will also sound.

When ever a fault condition occurs this is logged in the alarm’s internal memory. A report of the alarms operation can be downloaded using a data logging unit and this information stored on a PC for maintenance record purposes.

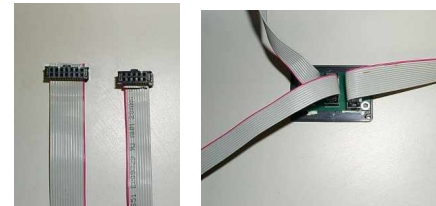
Sensor Operation Check

In order to check correct sensor operation cover each sensor opening in turn and wait for a maximum of 20 seconds to see if the alarm unit responds with a sensor low flow condition.

To prove effect operation of both sensors open the access door to the cabinet and wait for a maximum of 20 seconds, an audible alarm will sound to indicate that the airflow profile coming into the cabinet is not acceptable.

Installation and Calibration Guide

Alarm Assembly & Connection



The unit uses two types of ribbon cable: 10-way and 14-way. The two 10-way cables connect the flow sensors on the airfoil to the connection box. The 14-way cable connects the connection box to display unit (as shown below). Also connected to the display unit is the power supply. This is where the data logger is connected.



Alarm Operation

Both sensors are checked once every 100ms. The results are averaged over 20 cycles, a period of 2 seconds.

If the flow of both sensors' average is greater than 0.3m/s, then the display will read "**Airflow safe**".

Both the left- and right-hand green LEDs are illuminated, indicating a safe condition.

If the left or right-hand sensor's average is less than 0.3 m/s for more than 15 seconds the red alarm LED is illuminated.

The display will show which sensor triggered the alarm, i.e. "Low flow on RHS" (Right Hand

Sensor). An audible alarm sounds at an interval of 1 second on, 5 seconds off.

If both sensors' average is < 0.3m/s for more than 5 seconds, then the unit displays "**Airflow Fail**". The red alarm LEDs are lit and the audible alarm sounds as above.

Once the unit has entered either of the above alarm states, then an average flow of > 0.3m/s for more than 2 seconds needs to be achieved. When this occurs, the alarm condition will automatically be reset.

Sensor Fault

If during normal operation any of the sensors are removed or become faulty, the unit will display which sensor is faulty. The unit will flash both red alarm LEDs and sound an alternating audible. This will continue until the sensor causing the alarm is re-activated.

If the cause is due to a faulty sensor, then the sensor needs to be replaced. During this fault condition, the unit will not measure or log any flow data; however the alarm condition that has resulted in a fault will be logged.

Logging of Fault Conditions

A Fault condition is logged along with Date and Time when:

- Any Sensor registers a low Flow Condition

- Power is Turned Off and On
- Airflow Failure is registered when both sensors record a low flow condition

Sensor Operation Check

The sensors can be checked by blocking the air flow or opening the Cabinet door. Within 20 Seconds an audible alarm will sound and an LED will indicate which sensor has failed.

Alarm Calibration

Plug the Remote logging unit into the alarm unit, the logger will be powered via the alarm.

The remote logger will show the status of the internal memory before entering the main menu.



Menu Functions

Navigation is by means of the UP, DOWN and ENTER buttons. There are 5 modes as follows.

- Set Up Sensors
- Set Date and Time
- Download Stored Data to PC

To enter the above modes, navigate with the Up and DOWN buttons until the mode is displayed and then press the ENTER button.

Set Date and Time

- Upon entering this mode, the Remote display will show the date and time set in the Logger. (The Logger display will show "Clock setting").

Set Up Sensors

Upon entering this mode, the Remote Logger display will read "**set L/R/T Pots**" on the first line and "**<= Escape**" on its second line.

The logger will display the left- and right-hand sensor flow readings on the first line and, if fitted, the tube sensor readings on the second line.



There are three potentiometer ("pot") adjusters on top of the alarm. The left potentiometer adjusts the left-hand sensor; the middle potentiometer, the tube sensor; and the right potentiometer, the right-hand sensor.

- With the use of a calibrated anemometer, the sensors should be calibrated by adjusting the relevant trimming pots for each sensor so that they read the average face velocity near the location of each of the sensors.
- Once the sensors have been calibrated, press the ENTER button to escape. This will return the remote unit back to the menu mode and the logger back to its main routine.

Date and Time

If the time is correct, press the UP button for YES and the unit will beep before returning to the menu mode. If the time is incorrect, press the DOWN button to enter the Set Up Date and Time mode.

- The first step is to set the year. With the use of the UP and DOWN buttons, select the correct year, then press the enter key.
- Next set the month, date, hour and minutes in a similar manner to above.
- Once all of the settings are correct, the Logger will beep and return to the menu mode.

The logger will display the new date and time on its top line and **"Please Wait"** on its second line. You should not try to enter a new menu until this has cleared (stopped displaying). Otherwise, a message **"Comms failure"** will be displayed on the remote.

Downloading Data From Alarm Logger to remote Logger

1. When in 'Download Data Mode' press the ENTER button. The unit will immediately try to download all stored events from the Alarm Logger unit to the Remote Logger.
2. If there are no events stored, the Remote and Logger will display **"No Data Stored"**. The remote will return to the menu mode and the logger unit will return to its main routine.

If there is data to download, the Alarm will display **"Sending data to remote"** and the Remote will display **"Receiving data"**. Upon completion both units will display

"Download complete" and all data will be automatically erased from the internal memory of the Alarm logger in order to free up space. **This is important to note because once the data has been erased from the main logger, it can not be retrieved again from this unit** (it will be stored in the remote for PC download only).

Downloading data to PC

In order to download and record the data from the Alarm Logger the AirFlow data logging software must be loaded onto a PC.

Connection to the PC from the Datalogger is via a 9 pin serial port cable for the data and USB cable for power.

1. This mode is used to send to a PC the data that has been loaded into the Remote Logger from the Alarm logger.
2. After the download program has been launched on the target PC, Press the ENTER button on the Remote Logger. The Remote display will show **"Sending data now"**. The PC will show a progress bar.
3. When the transfer is complete the Remote will display **"Download to PC completed"** and the PC will show **"Download completed"**.

4. The Remote will then display **"Clear Memory"**, and ask you to select Yes or No. If you are happy that the transfer was successful, select YES to clear the memory. Once you do this then the only record of the data is on the PC. If you select No; then the memory will remain on the remote. You can then use the remote to again download its memory contents to another PC if required.

Data logging Software Report



Recommended Menu Settings For Using Sartorius Balances in SWC Safety Weighing Cabinets

Due to air currents prevailing in the SWC weighing cabinet, it may be necessary to readjust the filter parameters on some models in order for the balance to work within tolerance. The extended weighing times presented in the table below were calculated based on filter settings and airflows. The US Pharmacopeia requires that the minimum sample weight be determined on-site. Therefore, the minimum sample weights are given as recommended values only. The actual minimum sample weight according to USP is strongly dependent on the properties of the tare container.

		Recommended Menu Settings		Weighing Results	
Model	Note	Ambient Conditions	Stability Range	Typical Weighing Time	Minimum Weight Achievable
Precision Balances					
LA1200S	Limited to use with draft shield + cover only! No stability without cover!	Stable	2d	4s	1g
LA620S					
LA220S					
LA2000P					
LA620P					
LA5200D					
LA3200D					1.5g
LE1003S	Limited to use with draft shield + cover only! No stability	Stable	2d	6s	2g
LE1003P					
LE623S					
LE623P					
LE323S					
CP423S	Limited to use with draft shield + cover only!	Stable	2d	6s	2g
CP323S					
CP323P					
CP153					
ED623S	Limited to use with draft shield + cover only!	Unstable	1d	4s	2g
ED423S					
ED323S					
ED153					
Analytical balances					
ME614S		Stable	1d	5s	150mg
ME414S					
ME254S					
LA310S		Stable	2d	4s	150mg
LA230S					
LA230P					
LS120S					
LE324S					
LE244S		Unstable	1d	7s	200mg
CP324S		Unstable	1d	7s	200mg
CP224S					
CP124S					
CP64					
ED224S		Unstable	1d	6s	200mg
ED124S					
Semi-microbalance					
ME235S	with draft shield	Stable	2d	8s	20mg
ME235P		Unstable	1d	15s	30mg
ME235S	without draft shield				
ME235P					
LE225D		Unstable	1d	20s	30mg
CP225D		Unstable	1d	20s	30mg
Microbalances					
ME5		Unstable	1d	20s	2mg
ME5-F		Unstable	1d	20s	2mg
ME36S	interior draft shield	Stable	2d	12s	3mg
ME36S	without interior draft shield	Unstable	1d	20s	3mg
CP2P		Unstable	1d	12s	3mg
CP2P-F		Unstable	1d	12s	3mg

Spares & Accessories

Enclosure Accessories

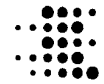
Cabinets without fan filtration or duct systems

SWC900NF	Safety weighing cabinet w/o, 900x500mm
SWC1200NF	Safety weighing cabinet w/o filter, 1200x500 mm
SWC200TNF	Safety weighing cabinet w/o, 1200x750 mm
SWC900TNF	Safety weighing cabinet w/o, 900x750 mm
ST-WASTECHUTE	Disposal chute for waste; fits to side of cabinet
ACC-BAG/WST	Disposable chute bags, qty. of 50

Fan and filters

FILT-SOV-DS/300	Carbon filter for solvent vapours
YWCF03	Box for carbon filters; fixes to the fan filter box
ST-SIL/IL	Silencer unit option; attaches to exhaust of fan
GAS500	Airflow smoke test kit to check for air turbulence
YWCG07	Anti-static decontamination wipes
ST-PRT	Printer table

Certifications



sartorius
mechatronics



EG-Konformitätserklärung *EC Declaration of Conformity*

Sartorius AG
37070 Göttingen
Germany

erklärt, dass das Betriebsmittel
declares that the equipment

Gerät:
Apparatus: **Sicherheitswägekabine**
Safety Weighing Cabinet System

Baureihe / *Batch:* **SWC**

Typbezeichnung:
Type: **Siehe Anhang 1**
See Annex 1

mit den Regelungen der folgenden Europäischen Richtlinien übereinstimmt:
complies with the regulations of the following European Directives:

Richtlinie 2004/108/EG Elektromagnetische Verträglichkeit
Directive 2004/108/EC *Electromagnetic compatibility*

Richtlinie 2006/95/EG Elektrische Betriebsmittel zur Verwendung innerhalb
EC Directive 2006/95/EC bestimmter Spannungsgrenzen
Electrical equipment designed for use within certain voltage limits

Das Gerät erfüllt die anwendbaren Anforderungen der in Anhang 2 aufgeführten harmonisierten Europäischen Normen.
The apparatus meets the applicable requirements of the harmonized European Standards listed in Annex 2.

Sartorius Mechatronics
Göttingen, 2007-09-12

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